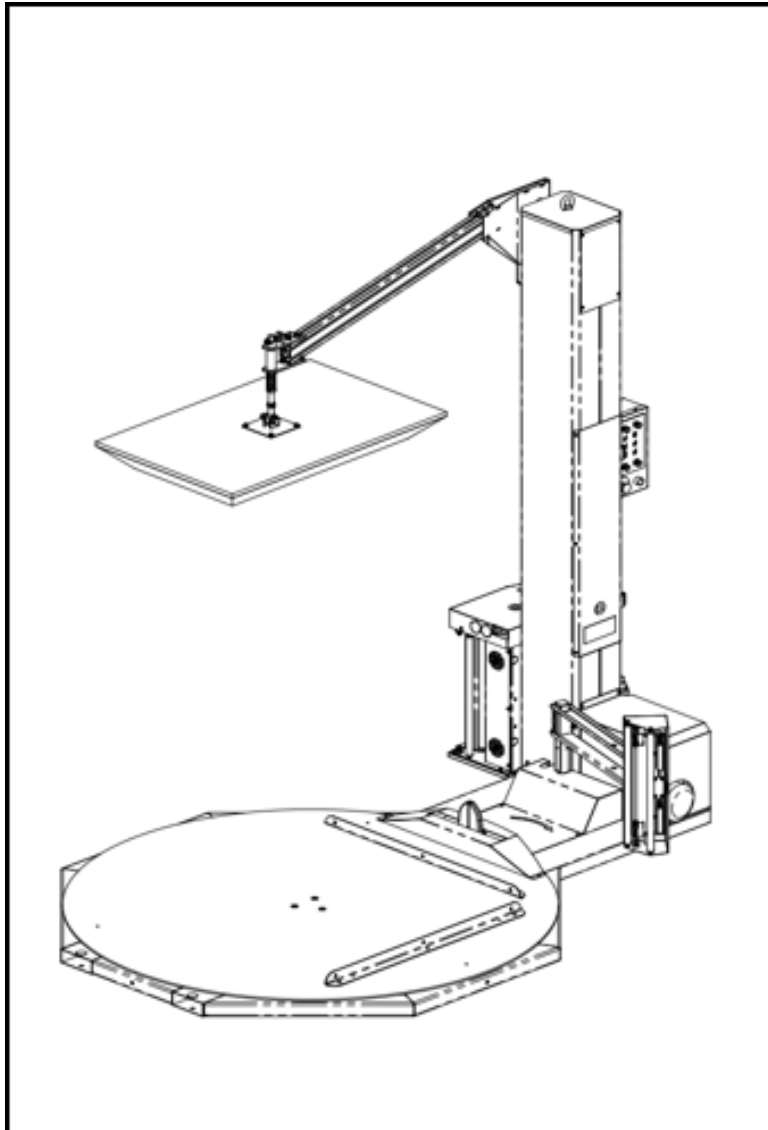


# FSW-380A

## USER & MAINTENANCE MANUAL



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## **0.0 FOREWORD**

### **0.1 HOW TO READ AND USE THE INSTRUCTIONS MANUAL**

#### **0.1.1 THE IMPORTANCE OF THE MANUAL**

**The instruction manual is to be considered as an integral part of the product; keep it and look after it throughout the lifetime of the machine and hand it on to any other users or subsequent owners.**

All the instructions contained in this manual must be followed by both operators and qualified staff in order to correctly and safely install, start up, use and service the machine.

In the event of doubts or problems, contact the technical service centres.

#### **0.1.2 SAFE KEEPING THE MANUAL**

Use the manual in such a way as not to damage all or part of the contents.

On no account should any parts of this manual be removed, torn out or rewritten.

Keep the manual in places protected from humidity and heat.

Keep the manual and all the related publications in an accessible place known to all the operators.

All use and maintenance operations concerning commercial machine components that are not indicated in this manual are contained in the relative publications attached to it.

#### **0.1.3 CONSULTING THE MANUAL**

This instruction manual is made up of:

- COVER WITH MACHINE IDENTIFICATION
- INSTALLATION AND ASSEMBLE
- INSTRUCTIONS AND/OR NOTES ON SAFETY USE OF THE PRODUCT
- ATTACHMENTS

#### **0.1.4 COPYRIGHT**

This manual contains confidential industrial information belonging to Manufacturer. All rights are reserved and may be protected by copyright or other ownership laws and treaties.

No part of this manual may be reproduced in any form or by any means without explicit permission from Manufacturer.

#### **0.1.5 INFORMATION ON THE IMAGES AND CONTENT**

The illustrations in this manual have been included solely by way of example for better understanding of what is described. This document may be subject to change by Manufacturer without prior notice, but the information on safe use is still guaranteed.

## 0.1.6 UPDATE OF THE INSTRUCTION MANAUL IS FOR

The essential features of the type of machine described being understood, Manufacturer reserves the right to make any modifications to the devices, details and accessories as it sees fit for product improvement or for construction or commercial requirements.

## 0.1.7 SYMBOLS – MEANING AND USE



**Danger**

Indicates a hazard with the risk of mortal injury. Failure to observe warnings marked by this symbol can lead to a situation of serious risk to the safety of the operator and/or exposed persons.



**Warning**

Indicates a hazard with the risk of danger to the machine or the product being processed. Failure to observe warnings marked by this symbol can lead to malfunction or damage to the machine.



**Information**

Indicates notes and advice for practical machine use in the different operating modes.

## 0.2 WHO THE MANUAL IS FOR

### **MACHINE OPERATOR:**

Trained operator who after an appropriate training course on use of the machine will be able to carry out the most simple machine adjustments.

### **MECHANICAL MAINTENANCE TECHNICIAN:**

Qualified technician able to operate the machine like the machine operator and work on the mechanical devices for adjustment, maintenance and repair. The mechanical maintenance technician is not qualified to perform operations on live electrical systems

### **MAINTENANCE ELECTRICIAN:**

Qualified technician able to operate the machine like the machine operator, make adjustments and work on electrical systems for maintenance and repair.

### **SPECIALISED TECHNICIAN OF THE MANUFACTURER:**

Qualified technician of the manufacturer or his distributor able to operate the machine like the machine operator, work on the mechanical devices and on the electrical system for adjustments, maintenance, repairs and complex operations when agreed with the user.

### **EXPOSED PERSON:**

Any person partially or fully in a hazardous zone.

## 1.0 SAFETY AND ACCIDENT PREVENTION

### 1.1 GENERAL SAFETY INSTRUCTIONS

- Before starting work, the operator must be familiar with the position and functioning of all the controls and machine features. Daily check all the safety devices on the machine.
- Before starting the working cycle, the operator must ensure that there are no EXPOSED PERSONS in the HAZARDOUS ZONES.
- The employer must provide and instigate the use of personal protective equipment (PPE) conforming to the prescriptions of Directive 89/391/EEC (and subsequent revisions). While using and carrying out maintenance on the machine the use of personal protective equipment (PPE) such as safety footwear and overalls, approved for accident prevention, is obligatory.
- The areas where the operator stands must always be kept clear and free of oily residues.
- It is forbidden to approach the machine moving parts, such as the carriage and turntable, while the machine is running.
- It is strictly prohibited to operate the machine in automatic mode with the fixed and/or mobile safety guards removed.
- It is strictly prohibited to disable the safety devices installed on the machine.
- Any operational adjustments that need to be carried out with some of the safety devices disabled must be performed by one person only, and unauthorised persons may not access the machine during this time.

- The room in which the machine is housed must not have any shadow areas, annoying bright lights or hazardous stroboscopic effects caused by the lighting supplied.
- The machine can operate in clear air conditions at ambient temperatures of +5°C to +40°C.
- The machine must be used **exclusively by qualified personnel**.



**THE MACHINE MUST ONLY BE USED BY ONE OPERATOR AT A TIME, USE OF THE MACHINE BY 2 OR MORE OPERATORS AT THE SAME TIME IS FORBIDDEN. DURING ALL MAINTENANCE, REPAIR OR ADJUSTMENT OPERATIONS, IT IS OBLIGATORY TO TURN THE MAIN SWITCH TO (0). IF YOU NEED TO CONDUCT WORK INSIDE THE ELECTRICAL PANEL, ALWAYS TURN THE MAIN SWITCH TO (0) AND DISCONNECT THE POWER FROM THE POWERPOINT. IT IS ADVISABLE TO POST A WARNING SIGN ON THE CONTROL PANEL ONBOARD THE MACHINE OR ON THE MAIN POWER SWITCH (WHATEVER APPLICABLE); THIS SIGN SHOULD READ AS FOLLOWS: WARNING! DO NOT TOUCH - MAINTENANCE STAFF AT WORK.**



**DO NOT REMOVE THE FIXED GUARDS WHEN THE MACHINE IS RUNNING. ALWAYS REFIT THE FIXED GUARDS AFTER ANY MAINTENANCE OPERATION.**

As soon as possible after an operation that required disabling of some safety devices, the machine must be restored to a safe state by re-enabling all the safety devices.

Do not for any reason modify parts of the machine (e.g. attachments, holes, finishes, etc.) in order to adapt it to other devices.













We therefore advise you to request any modifications directly from the Manufacturer.

## 1.2 SAFETY SIGNS

The safety signs (Fig. 1.2a) described in this manual, are located on the machine structure at suitable points and warn of the likelihood of danger due to residual risks.

The adhesive stickers, distinguished by yellow and black bands, warn of areas of risk for operators and so maximum care must be taken where these signs are located.

The adhesive stickers applied to the machine must always be kept clean and legible.

	High voltage hazard
	Cut off power to the machine before opening the electrical panel. It is forbidden to remove fixed safety guards.
	It is forbidden to transit or remain in areas with moving parts.
	It is obligatory to read the instruction manual carefully before operating the machine.
	It is obligatory to read the instruction manual carefully before operating the machine.
	Pick-up point for lifting and handling with a fork lift truck.
 	It is obligatory to switch off the machine and remove the plug before starting any maintenance operations or repairs.
	Danger of falling from the turntable
	Finger crushing hazard due to moving parts.
	Danger of scalding or burning
	Danger of crushing





### 1.2.1 WARNING OF RESIDUAL RISKS

The machine has been designed and constructed in such a way as to allow the operator to use it safely, eliminating or reducing the residual risks by the adoption of safety devices. It has not however been possible to eliminate some risks, listed below (Fig. 1.2.1 a), because these are inherent in the way the machine works:



#### **Risk of getting trapped**

Before starting the machine the operator must make sure that no other operator is present inside the machine perimeter **(1)**.



#### **Risk of getting trapped**

Never climb on the turntable – conveyors **(2)** while it is moving as you may fall or get caught up in the film winding zone.



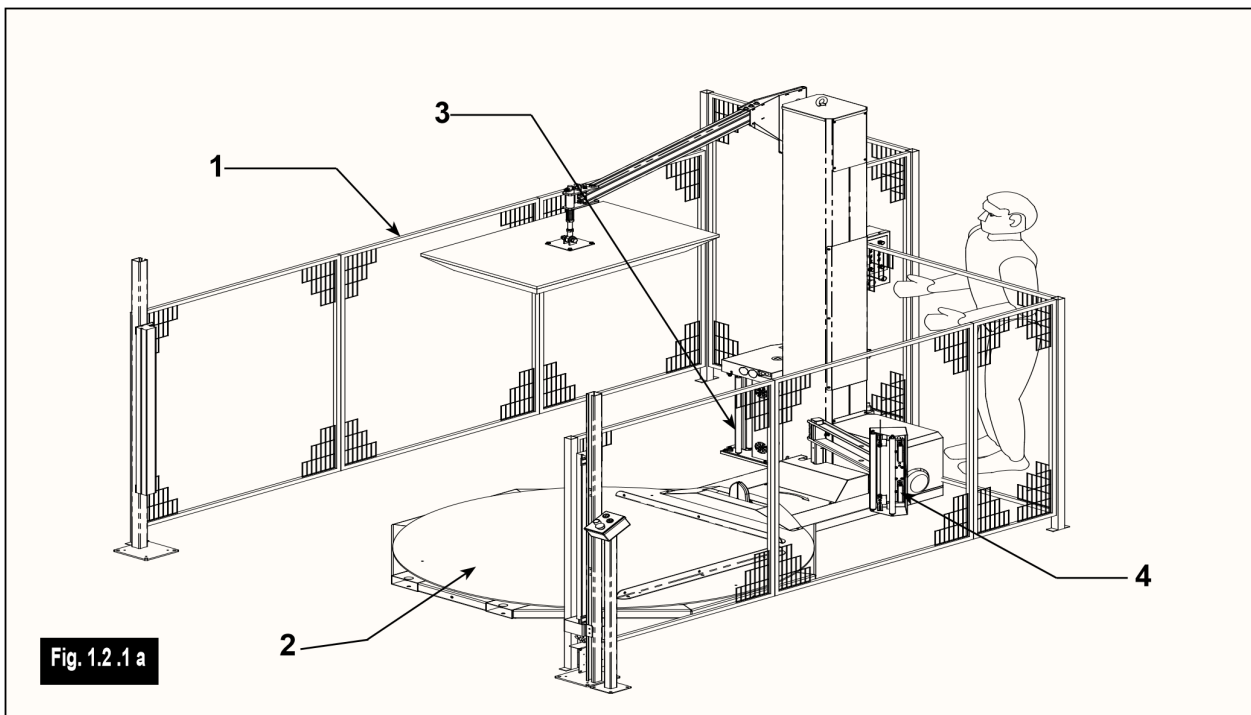
#### **Risk of getting crushed**

Do not remain in or pass through the carriage movement area. In the lowering phase there is the risk of impact and being crushed between the carriage safety plate **(3)** and the ground.



#### **Risk of scalding or burning**

Do not touch the cutting wire or welding (if any) **(4)** in what remains the risk of scalding or burning.



### 1.3 SAFETY DEVICES

**THE MACHINE HAS BEEN DESIGNED AND CONSTRUCTED TO ALLOW SAFE USE IN ALL THE CONDITIONS INTENDED BY THE MANUFACTURER, ISOLATING THE MOVING PARTS AND LIVE COMPONENTS BY THE USE OF SAFETY GUARDS AND SAFETY DEVICES TO STOP THE MACHINE. THE MANUFACTURER DECLINES ALL RESPONSIBILITY FOR DAMAGE OR IN-JURY TO PERSONS, ANIMALS OR OBJECTS CAUSED BY TAMPERING WITH THE SAFETY DEVICES.**

- Emergency button **(A)** on the electrical panel.
- The top area of the carriage, where the drive transmission gears are, is protected by fixed guard **(B)**.
- The moving parts of the turntable are protected by fixed guard **(C)**.
- The electrical panel is protected by fixed guard **(D)**.
- Under the carriage there is a mobile plate **(E)** interlocked by a safety switch which, if the plate comes into contact with a foreign object it stop the machine and sends the carriage back up for 2 seconds.

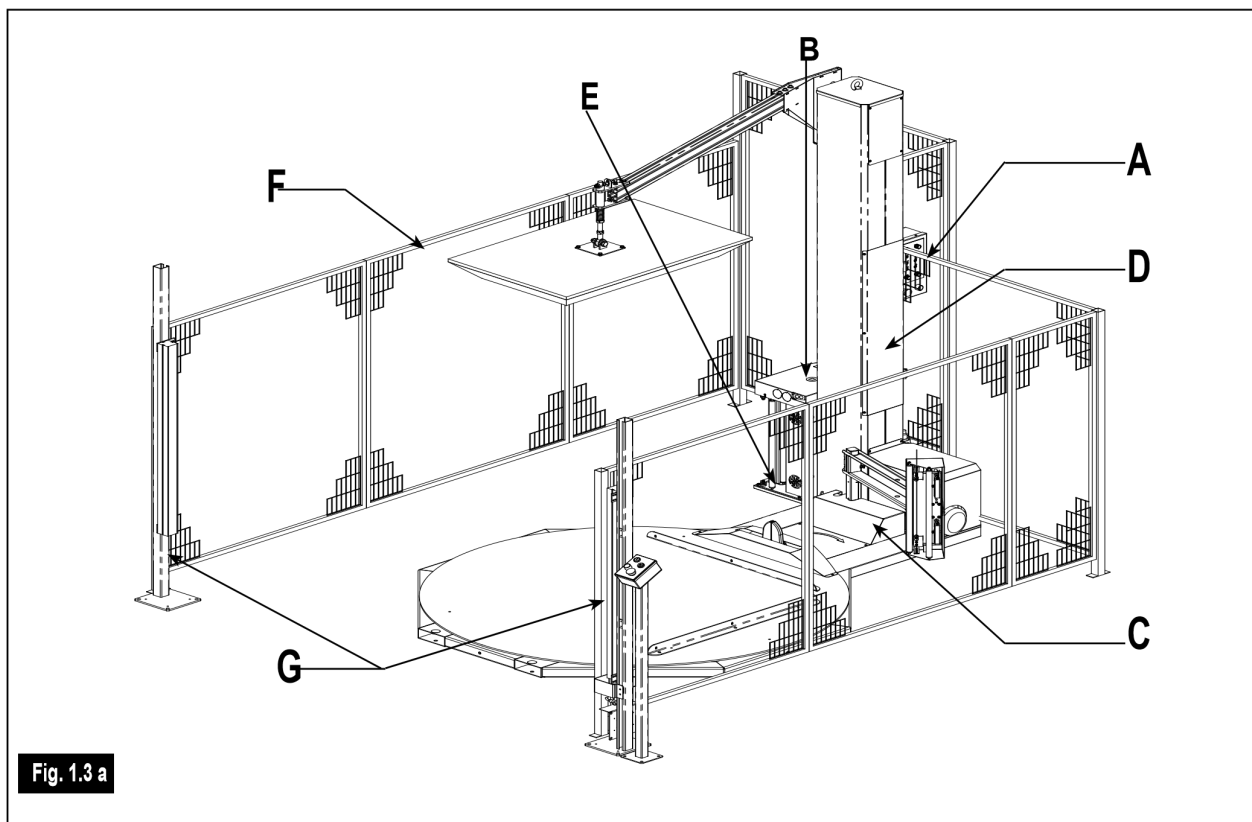
NON-OPENABLE fixed perimeter safety guards **(F)**, (mounted to the floor), placed all around the machine except in the pallet entry and exit zones. The pallet entry and exit zones are protected by electro-sensitive anti-intrusion barriers **(G)**.



If an operator or a foreign object crosses through these barriers while the machine is running, the machine itself will stop automatically.

When starting the machine, show utmost caution and make sure that no operator is present in zone **"F"**, on the inside of guard **"G"**, since there is a danger of getting trapped. It is absolutely essential that all operations on the machine be performed by 1 operator working alone in order to prevent accidental start-up by a second operator.

**N.B:** if the machine stop because device **(E)** has been triggered, the carriage can be sent up to remove the foreign object that triggered it.



## 1.4 TECHNICAL ASSISTANCE

For any orders, assistance or information, the user should contact the distributor quoting the following details:

- Machine model
- Serial number
- Year of manufacture
- Purchase date
- Approximate number of service hours
- Detailed indications regarding a specific operation to be carried out or the fault found.

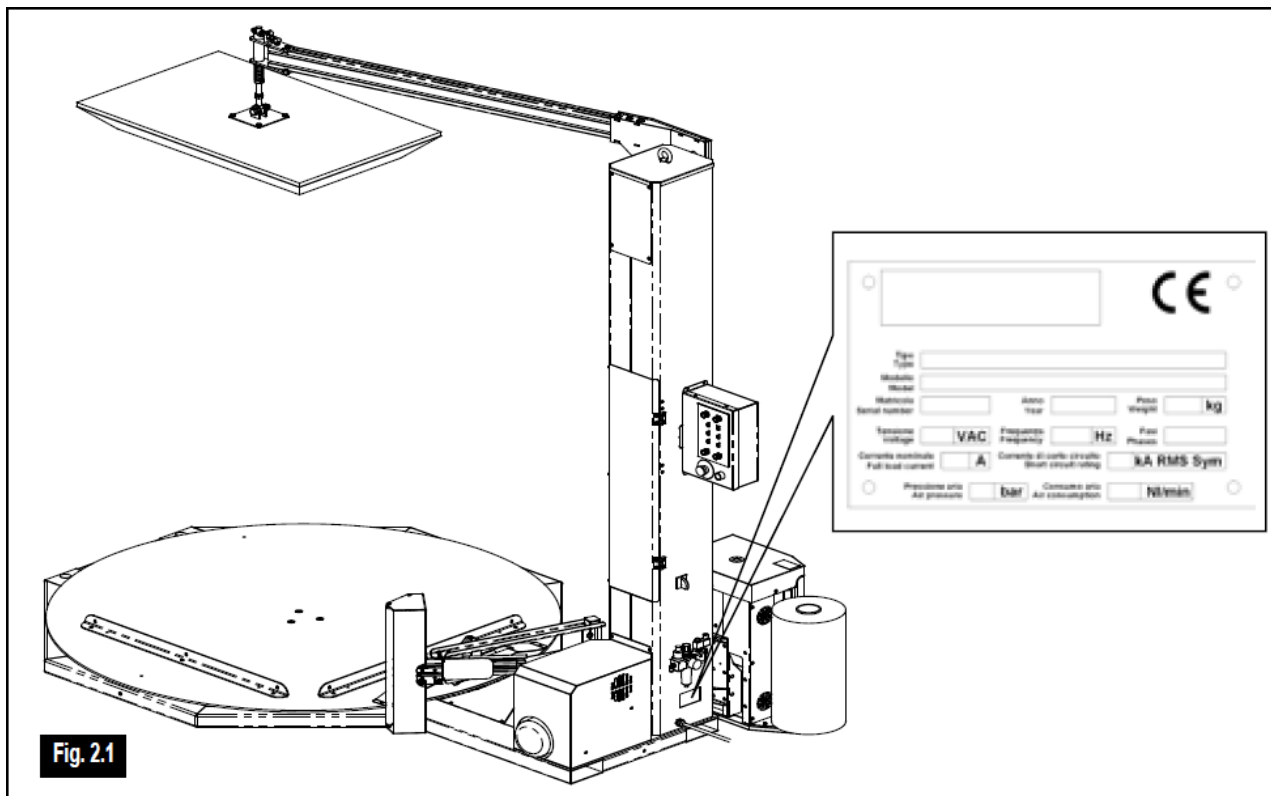
**N.B:** Best performance of our machine can only be maintained and guaranteed if original parts are used.

## 2.0 MACHINE DESCRIPTION

### 2.1 MANUFACTURER AND MACHINE IDENTIFICATION DATA

The identification plate (Fig. 2.1) fixed to the machine chassis, shows the following information:

- Manufacturer's name and address
- Machine type
- Machine model
- Serial number
- Year of manufacture
- Weight (kg)
- Nominal voltage (V)
- Operating frequency (Hz)
- No. of phases
- Nominal current (In)
- Short circuit current (Icu)
- Air pressure (bar)
- Air consumption (NI/cycle).



## 2.2 GENERAL DESCRIPTION

The wrapping machine is a semiautomatic designed machine that stabilises palletised products by means of a stretch film.

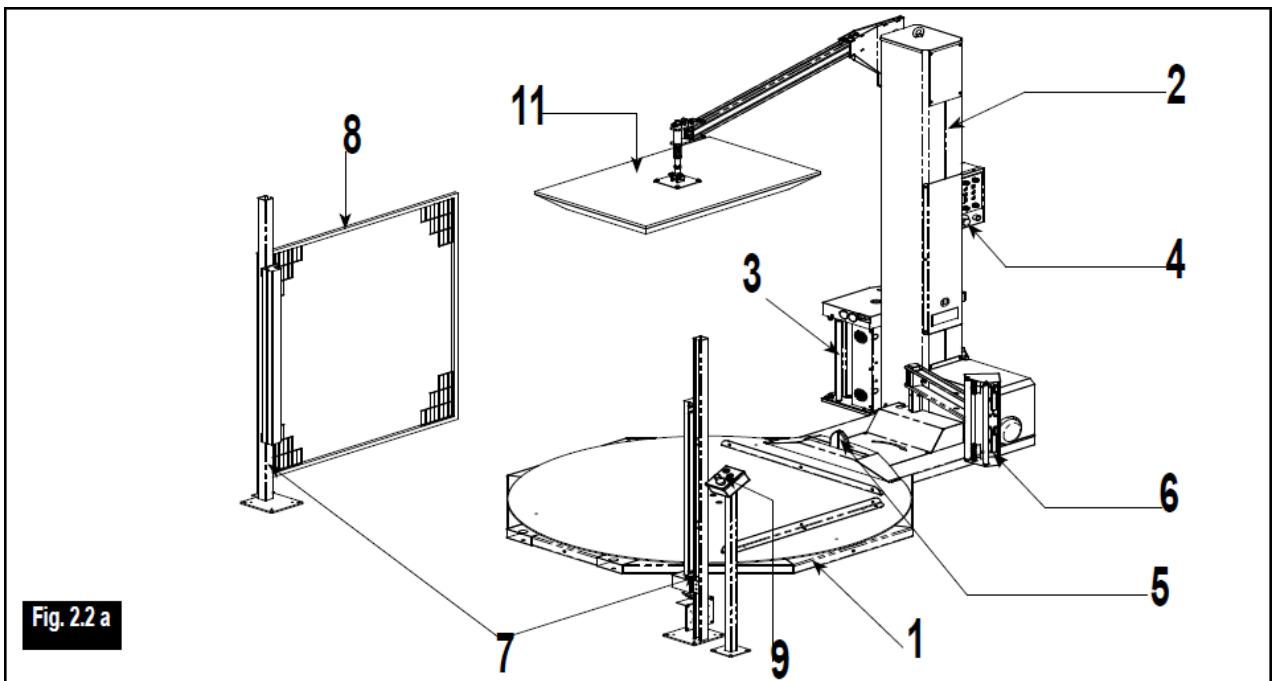
In its **standard version**, the machine comprises the following components (see Fig. 2.2 a):

1. **Turntable:** Table on which the palletised product to be wrapped is placed.
2. **Column:** Which a wrapping carriage is mounted.
3. **Wrapping carriage:** Moves vertically up and down; the vertical movement of the wrapping carriage combined with turntable rotation allows the product to be wrapped.
4. **Electric panel:** Structure containing the main switch, the control pushbutton panel and the electrical components.
5. **The clamp:** Holds the film tail during the welding/ cutting cycle and release it when the wrapper starts a new cycle.
6. **Cutting/Welding:** Cuts and welds (optional) the stretch film at the end of cycle allowing the pallet to be unloaded.
7. **Safety Barriers:** Electro-sensitive anti-intrusion barrier
8. **Safety cages:** Enclosure around the machine to prevent contact with moving machine parts.
9. **Push button remote controls:** Pushbuttons that allows you to start and stop the machine.

### Optional units

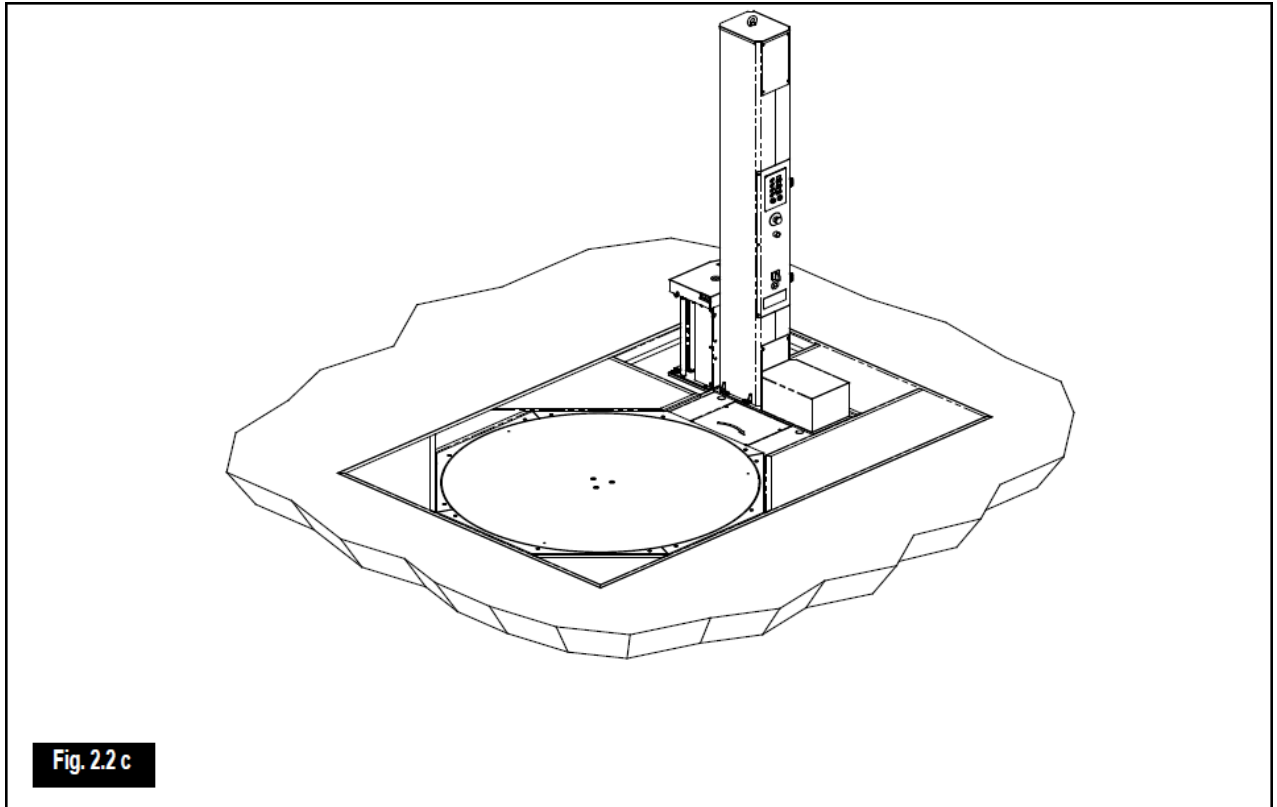
The following optional units can be supplied on request:

10. **Access ramp:** to turntable (not for recessed version). This allows a forklift truck (manual or electric trans-pallet) to place pallets directly onto the turntable.
11. **Presser unit:** is a device that clamps the product on the pallet from above. This device is useful when the product on the pallet is unstable.



The machine may be supplied on request in the following version:

Recessed (Fig. 2.2 c) for facilitating loading and unloading the pallets as the turntable sits flush with the floor. The customer must prepare a suitably sized hole in the floor for containing the machine in its recessed version.



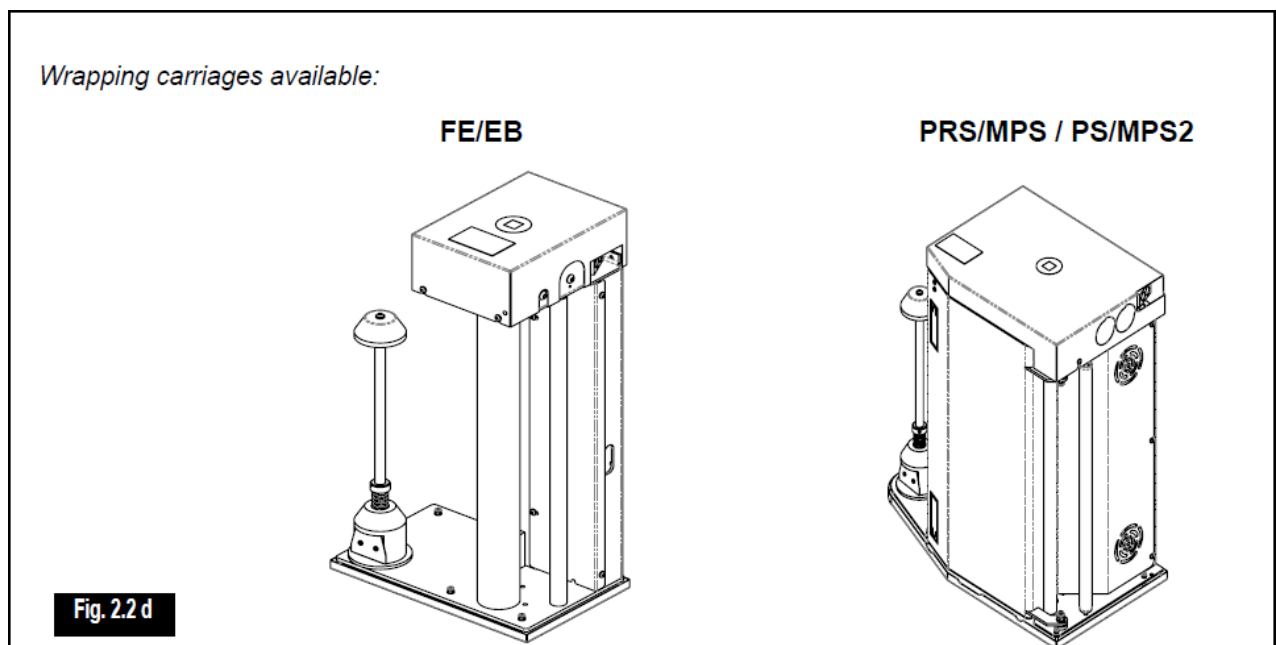
The machine can be fitted with one of the following winding carriages: CA4 (FE/EB), CA6 (PRS/MPS) and CA7 (PS/MPS2) (Fig. 2.2d).

**CA4 (FE/EB) carriage:** Delivers film during winding and adjusts its application tension. Tension is governed by a roller fitted with an electromagnetic brake which can be manually adjusted with a knob located on the carriage.

**CA6 (PRS/MPS) carriage:** Delivers film during winding and adjusts its application tension to the load. The carriage can pre-stretch the film by means of a mechanical control generated by a pair of gears (fixed mechanical ratio). Applied tension is adjusted and controlled by a sensor regulating the motor speed.

**CA7 (PS/MPS2) carriage:** Delivers film during winding and adjusts its application tension to the load. The carriage can pre-stretch the film at a variable ratio which is set from the operator's panel. Applied tension is adjusted and controlled by a sensor regulating the motor speed.

For specific information on the carriages, please refer to point 2.8.



## 2.3 INTENDED USE – PROPER USE PURPOSE

The wrapping machine, designed to be anchored to the ground, has been designed and constructed for wrapping various types of products stacked on pallets with stretch film, in order to stabilise the package and to protect it from damp and dust during transport and storage.

Using a lifting apparatus, the pallet is placed on the turntable for the product to be wrapped; the stretch film is applied by means of a dedicated carriage which moves on the vertical axis according to the height of the product to be wrapped.

### *Working limitations*

For safety reasons suitable working limitations have been imposed, in keeping with the size of the machine and the relative turntable. The products to be wrapped must be within the working limits of the machine in your possession, specified in terms of maximum load and maximum dimensions, on the layout delivered with the machine.

### *Stretch film*

Use a film of specification suitable for the type of carriage available and for the type of packaging application for which the machine was intended; always evaluate the choice of film in relation to its safety sheet. Use a perforated film if the wrapped products require ventilation otherwise they will generate condensation (fresh organic products: fruit, vegetables, plants, etc...). Use a blackout film for the protection of light-sensitive products.



## 2.4 UNINTENDED AND UNAUTHORISED USE – FORSEEABLE AND UNFORSEEABLE IMPROPER USE

Use of the pallet wrapping machine for unauthorised purposes, its improper use and lack of maintenance can lead to the risk of serious danger to health and safety of operators and exposed persons, as well as affecting the working efficiency and safety of the machine.

The following is a list of some possible, reasonably more foreseeable, examples of "bad usage" of the machine.

- NEVER allow anyone to climb onto the turntable.
- NEVER start the work cycle when there is anyone in the immediate vicinity of the machine.
- NEVER allow the machine to be used by unauthorised persons or by minors under the age of 16.
- NEVER leave the control station during the working process.
- NEVER load onto the machine containers that have toxic, corrosive, explosive or flammable products.
- NEVER start the work cycle if the load is not centred properly on the turntable.
- NEVER start the work cycle if the product loaded is tied outside the machine.
- NEVER use the machine outdoors or under not permitted environmental conditions.

## 2.5 TECHNICAL DATA AND NOISE

• Overall dimensions	Fig. 2.5.a
• Net weight of machine body	Fig. 2.5.a
• Supply voltage	Fig. 2.5.a
• Frequency	Fig. 2.5.a
• Phases	Fig. 2.5.a
• Nominal current	Fig. 2.5.a
• Power installed	Fig. 2.5.a
• Stretch film	17/30 µm
• Roll-holder tube inside	Ø75 mm
• Roll height	500 mm
• Maximum roll weight	18 kg
• Carriage speed min. ÷ max.	1 ÷ 4 m/min
• Turntable speed min. ÷ max.	4 ÷ 12 rpm
• Air pressure (bar)	6 bar
• Air consumption (NI/cycle).	50NI/cycle

### NOISE

In observance of annex 1 of machine directive **2006/42/EC**, the manufacturer declares that the noise emitted by the machine in question falls within the limits established by the above mentioned regulations 70 dB(A).

**INDICATIVE LAYOUT MACHINE STD**

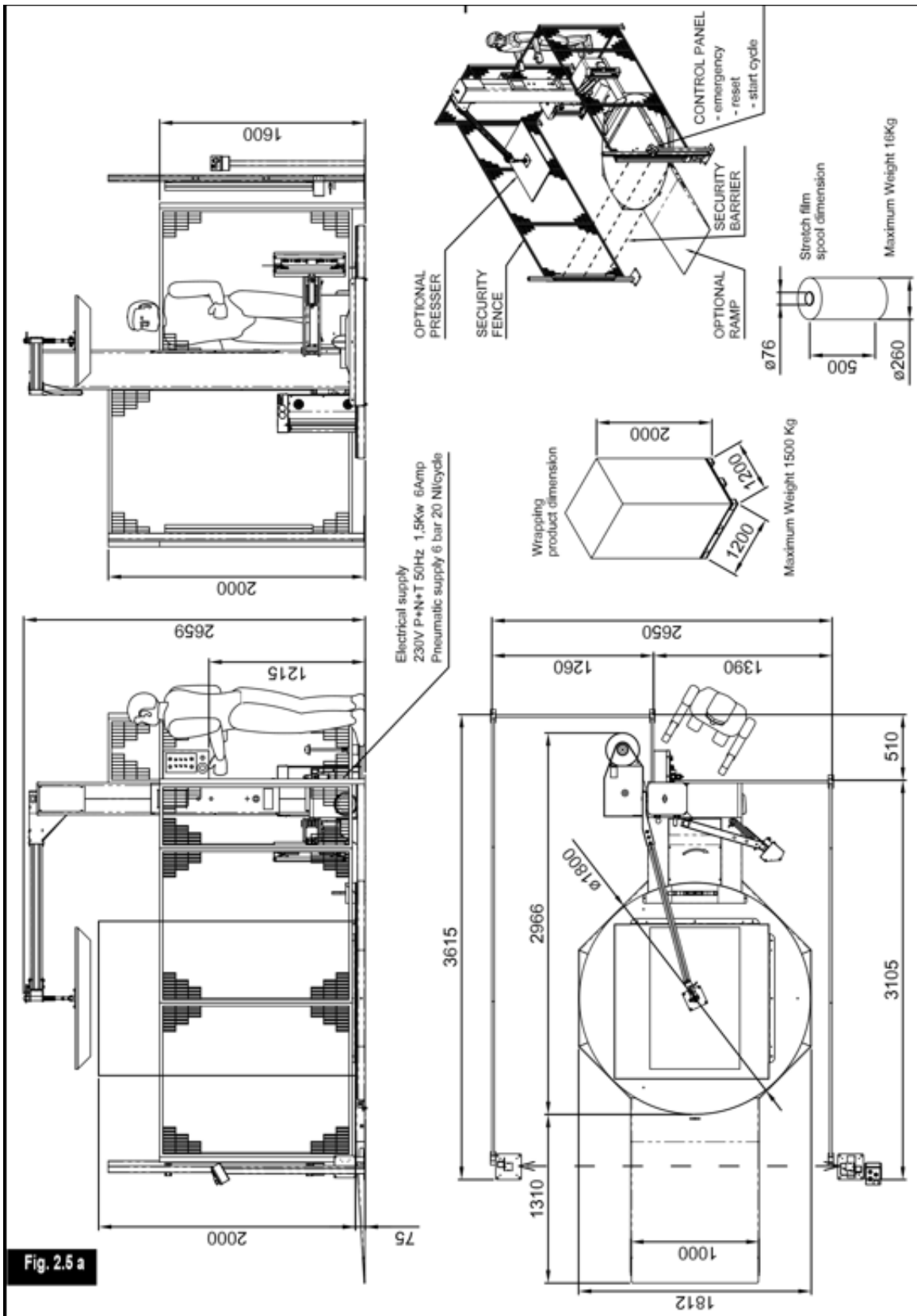


Fig. 2.5 a

## 2.6 WORK AND CONTROL STATIONS

STATION **A** - Control area - Fig. 2.6a

The operator must be at this station when the machine is carrying out a wrapping cycle. It is the station from where the operator starts and stop the machine and changes the machine working modes. It also allows visual surveillance of the work cycle, so that the operator can activate the emergency stop device in the event of potentially dangerous situations.

STATION **C** - maintenance area - Fig. 2.7a

In the maintenance area the operator carries out the following operations:

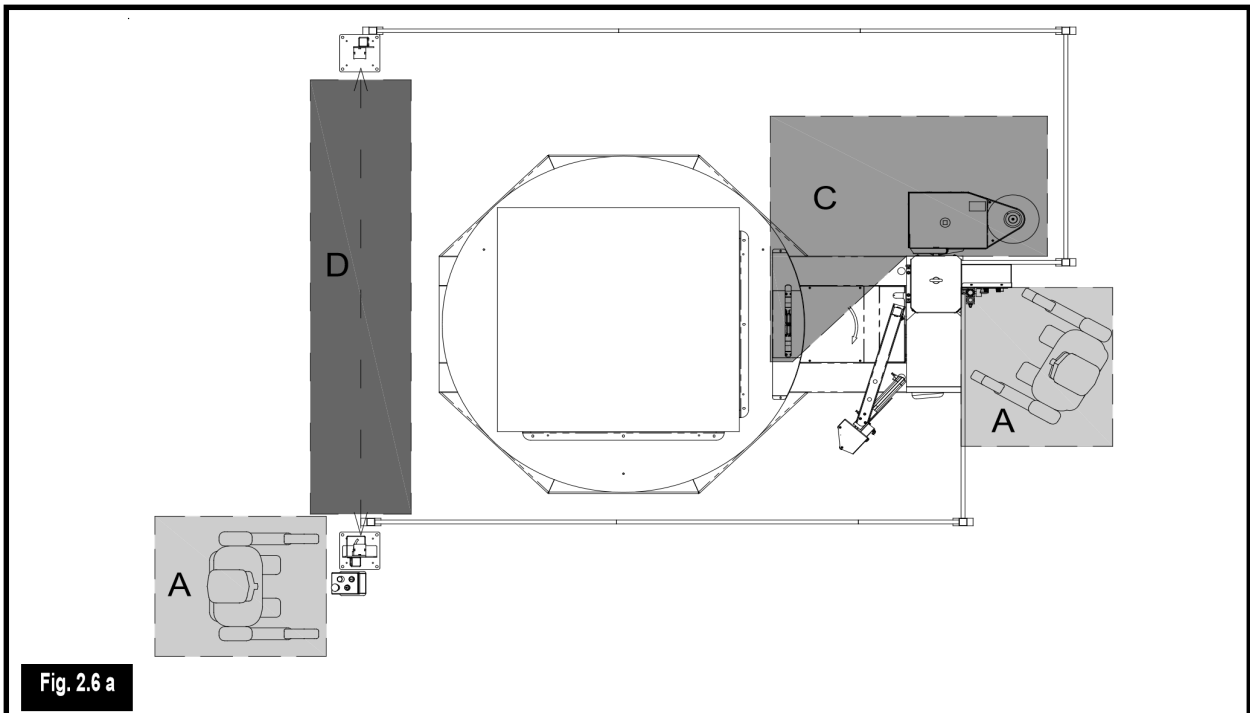
- Change the film roll and attach the film to the clamp;



**All operations that can be performed in station "C" must be carried out with the carriage fully down and the machine stopped (refer to point 5.6 in this manual).**



**IT IS FORBIDDEN TO CROSS THE OPEN SIDE OF THE FENCE AND IS PROTECTED BY BARRIERS, MARKED AS "D"**



## 2.7 OPERATING PROCEDURE

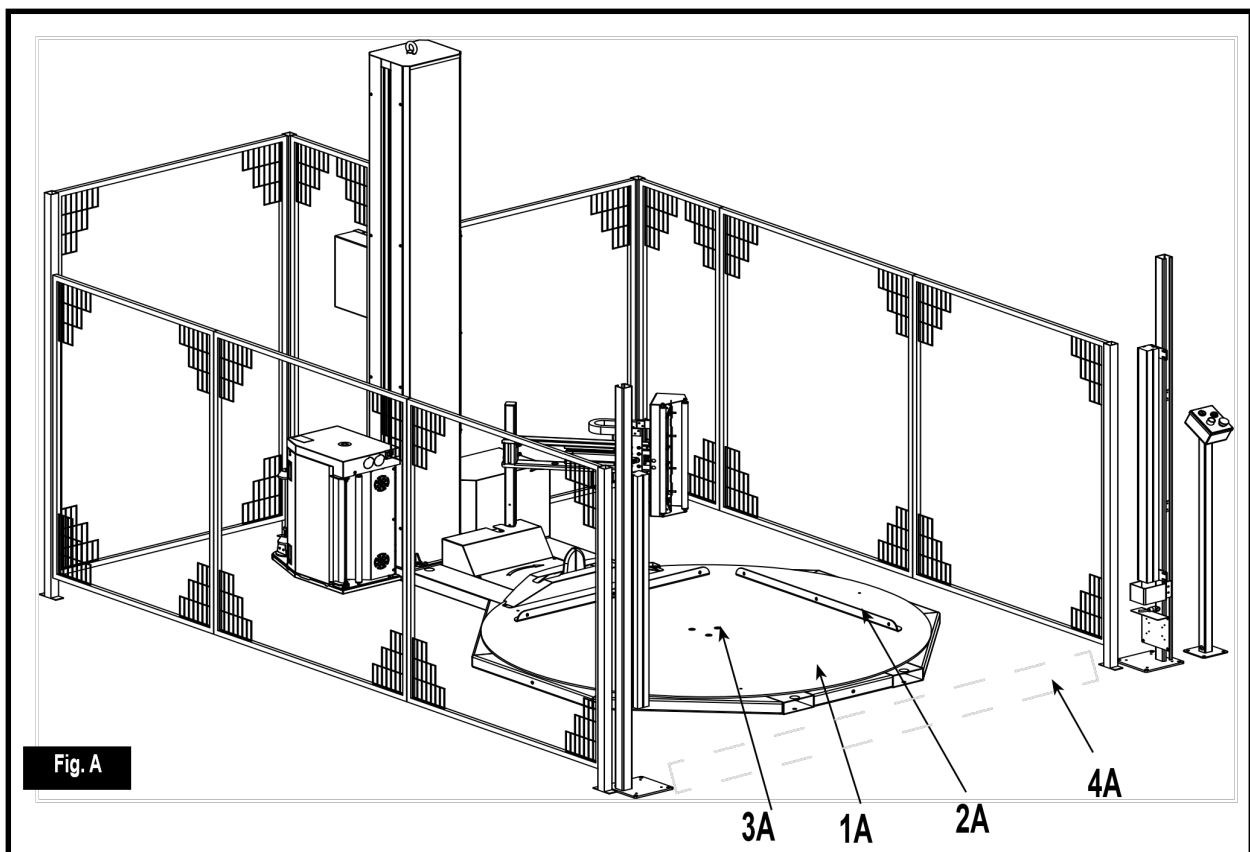
### 2.7.1 LOADING AND UNLOADING PROCEDURE

#### LOADING

By using a forklift truck, the operator places the product on the turntable (1A) and brings it as close as possible to the stoppers (2A). This way the product is centred to the turntable (3A). After clearing the loading area (4A), the operator must reset the safety barriers, restart the machine and start the wrapping cycle.

#### UNLOADING

When the machine has completed the wrapping cycle and reported it has finished, the operator picks up the wrapped product from the turntable (1A) using a forklift truck and reverses straight out clearing the safety barriers.



## 2.7.2 WRAPPING PROCEDURE

The wrapping cycle starts with the rotation of the rotating plate the product is placed on; the clamp that holds the film is fixed on the rotating plate; so with the rotation, the film starts to be wrapped around the product.

When the turntable has rotated at least twice, the clamp opens and releases the film at the same time a puff of air is blown and lifts the edge in such a way that it is wrapped during the next rotation. The film wrapping cycle around the product is carried out based on the parameters set from the operator panel.

At the end of the wrapping process, the rotating plate stops, the clamp closes to hold the film, the cutting/sealing arm moves forward to cut the film between the clamp and the product and glue the end of the film to the product itself.

The product can now leave the winding station.

## 2.8 ROLL-HOLDER CARRIAGE

### CA6 (PRS/MPS) ROLL-HOLDER CARRIAGE

With this carriage version (Fig. 2.8b), the application tension of the film on the pallet.

This carriage can pre-stretch the film according to fixed ratios determined by interchangeable gears. The pre-stretch ratios are:

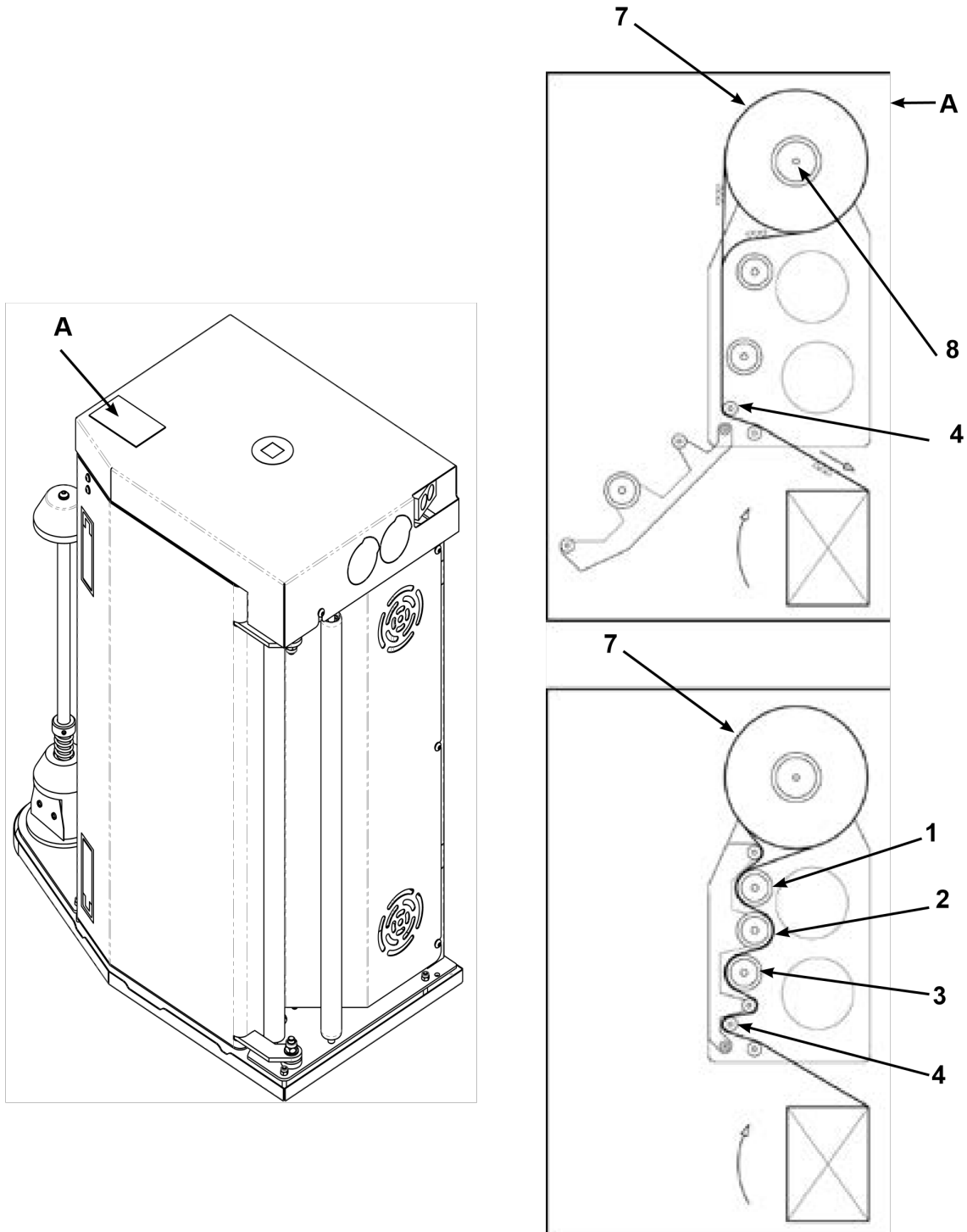
- **150%** (1 metre of film is pre-stretched to a length of 2.5 metres);
- **200%** (1 metre of film is pre-stretched to a length of 3.0 metres);
- **250%** (1 metre of film is pre-stretched to a length of 3.5 metres).

The carriage is fitted with a sensor **(4)**, connected to the outlet roller, which measures the film tension applied to the pallet.

A specific electronic card integrates the signal of the sensor **(4)** with the adjustment set with settings **F13-16** functions in the control panel in order to dynamically control the speed of the pre-stretch roller drive motor and thus the film tension. The carriage is fitted with a gear-motor which drives three rubber-surfaced rollers **(1)**, **(2)** and **(3)** by means of toothed gearing.

The different transmission ratios generate different speeds of the rollers **(1)**, **(2)** and **(3)** creating the pre-stretch action. The carriage also features a set of 3 idle rollers which are used to increase the winding angle of the film on the rubber-coated rollers. Upon starting, the film must be loaded onto the carriage.

- Bring the carriage to the down position to make fitting the roll easier.
- Turn the main switch to the **'O'-OFF position**.
- Place the roll **(7)** onto the centre pin **(8)**.
- Open the door and insert the film between the rollers following the path indicated in figure **A**. The triangle symbols indicate the side of the film to which the bonding agent (if present) is applied.
- Diagram **A** is also attached to the carriage top cover.
- Close the door making sure it is correctly secured. Turn the main switch to the **'I'-ON position**.



**Fig. 2.8 b**

## 2.9 GRIPPER, CUT, FILM SEALING UNIT

The gripper unit (1) is fixed to the rotating plate (2). The gripper holds it during the first revolutions, then releases it so that it can be included in the wrapping. It grips the film tail at end cycle ready for the next wrapping cycle.

It is composed of two fingers (3) with which each finger fixed to a cylinder (4) that controls the opening and closing of the gripper (5). The gripper is protected by a cover (6) with the function of letting the film slide. The gripper unit (1) is actuated by compressed air when the rotating plate (2) has stopped in the phase position. The air supply line for the gripper can be found underneath the rotating plate (2) or roller conveyor (8) (when present).

The air supply unit is composed of two parts:

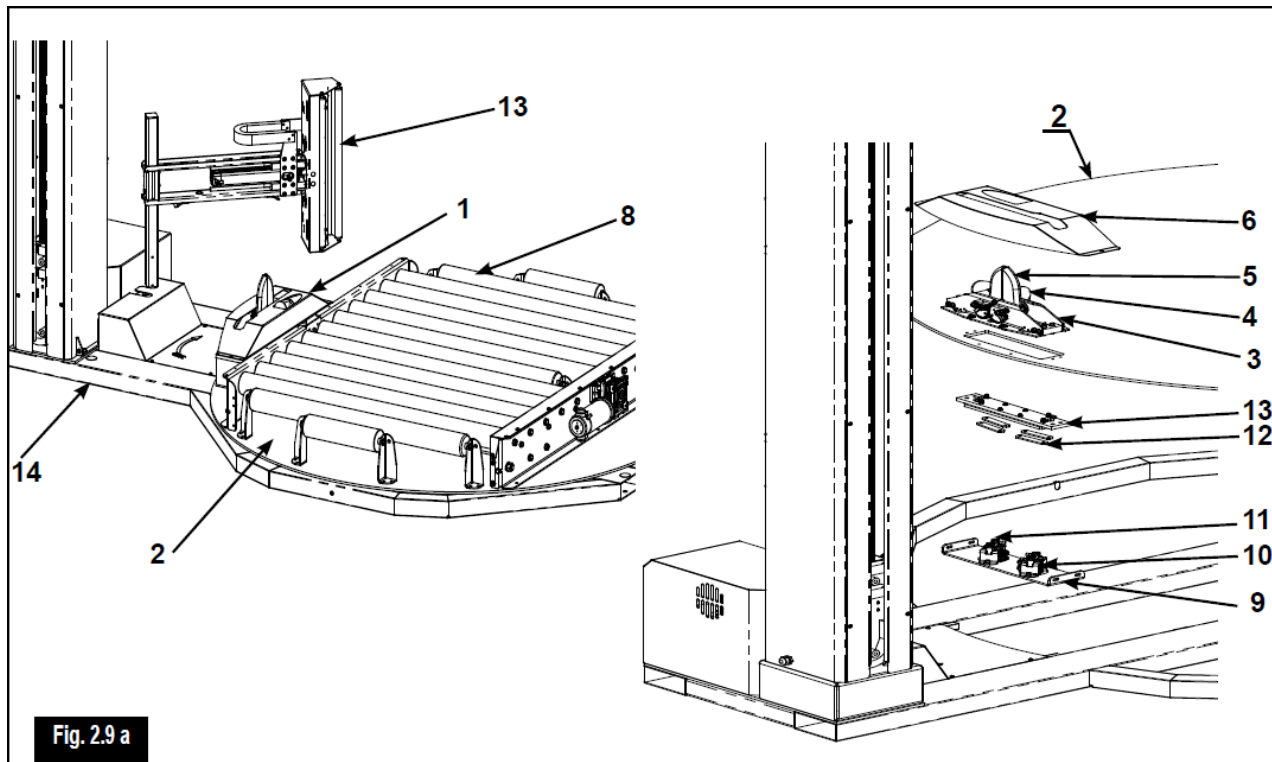
- A fixed air supply, anchored to the base.
- A rotating air supply fixed to the rotating plate.

The fixed part is composed of a plate (9) on which is fixed one (or two \*) cylinder (10) that lifts two (or four \*) electrodes (11).

The moving part is composed of two (or four \*) tracks in copper (12) and an isolating plate (13). When the rotating plate (2) is stopped and in phase, the electrodes (11) lift and meet the copper tracks (12); current is activated to control the motor (4) of the gripper (1) and, if present, the motor of the roller conveyor (8).

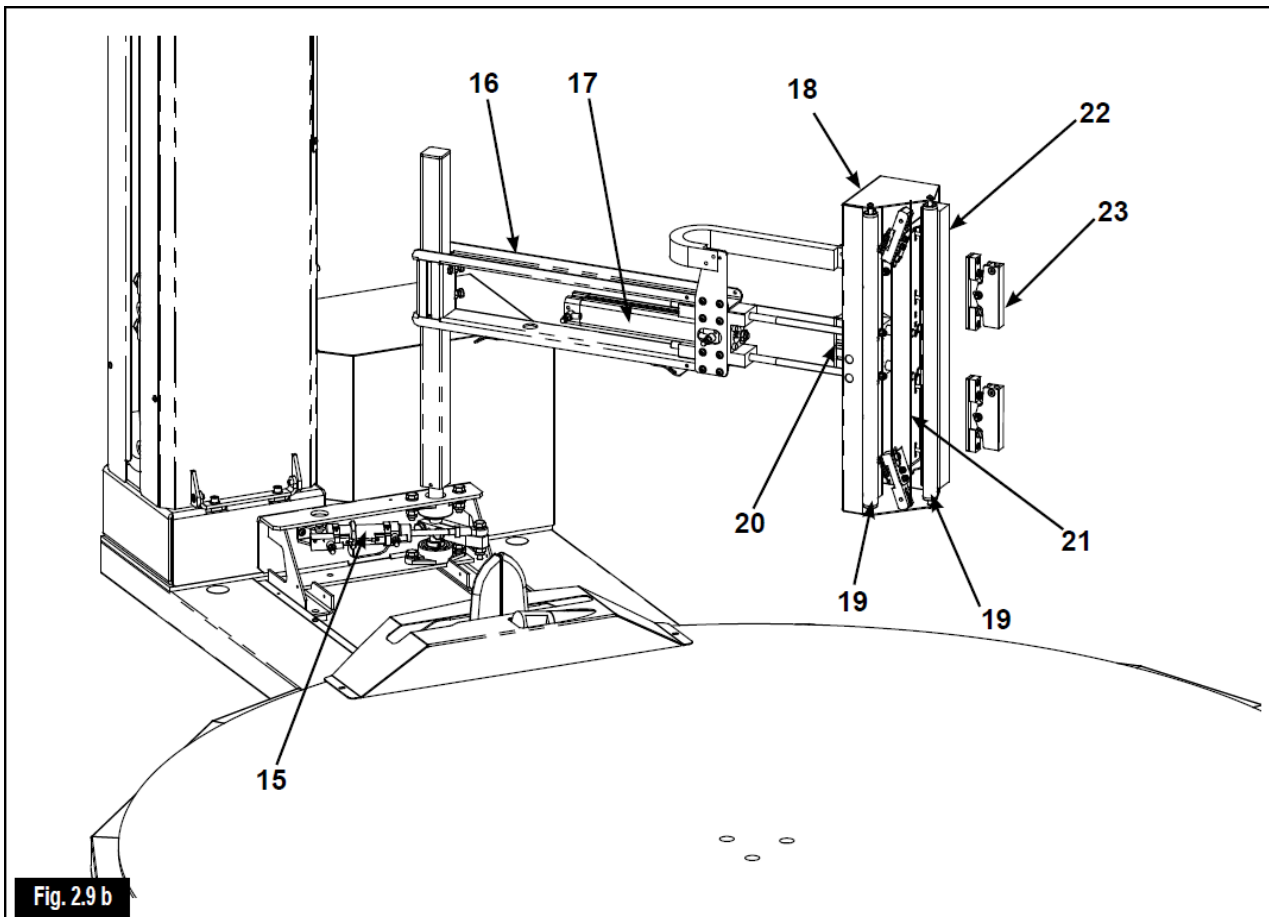
In order to add film to the gripper (6) it must be closed; the film must be tapered to a cord and inserted forcefully from above between the two semi-grippers for 3-5 cm, letting 3-5 cm protrude towards the product.

\* If the roller conveyor is present.



The cutting and sealing unit (13) is fixed to the base of the machine (14). It cuts and seals the film on the newly wrapped product, at end cycle. It is composed of a pneumatic cylinder (15) that controls the forward/back rotation of the arm (16); on the arm (16) is a fixed pneumatic cylinder (17) that controls the advancement-return of the head (18); on the head (18) are fixed two rollers (19) and a pneumatic cylinder (20) that controls the advancement-return of the cutting wire (21) and the sponge pad (22) or the sealers (23) if present.

At end cycle the rotating turntable stops in phase, the arm (16) rotates forward and the rollers (19) keep the film in position so the film is clamped by the gripper (5); after the gripper has clamped the film the head (18) advances until meeting the product, then the cutting wire (21) and the pad (22) or the sealers (23) advance to cut the film and glue the film tail to the wrapped product; once these operations are over, the entire arm returns to the rest position outside the rotation range.





### 3.0 TRANSPORT-HANDLING-STORAGE

#### 3.1 PACKING AND UNPACKING

The machine may be shipped in different ways depending on the transport requirements:

- Unpacked machine protected by transparent plastic wrapping.
- Machine on a wooden pallet and protected by transparent plastic wrapping.
- Machine packed in a wooden crate of suitable dimensions.
- Machine on a wooden pallet and protected by a self-supporting cardboard box (**standard packaging**).

Upon receipt, check that the packaging has not been damaged during transport or that it has not been tampered with and parts removed. Move the packed machine as close as possible to the place of installation and start unpacking, carefully checking that the supply corresponds to the order specifications.



**THE LIFTING AND TRANSPORT MEANS MUST BE CHOSEN BASED ON THE SIZE, WEIGHT AND SHAPE OF THE MACHINE AND ITS COMPONENTS.**

**THE CAPACITY OF THE LIFTING EQUIPMENT MUST BE GREATER**

**(WITH A SAEBTY MARGIN) THAN THE WEIGHT OF THE COMPONENTS TO BE TRANSPORTED.**

**N.B.:** If damaged or missing parts are found, immediately notify Customer Service and the carrier, providing photographic documentation.

Check that no small parts of the machine are left in the cardboard boxes.

Make a detailed examination of the general conditions of the machine.

The various packing materials must be disposed of in accordance with current environmental protection regulations.



**DURING UNLOADING AND HANDLING OPERATIONS, ASSISTANT MUST BE ON HAND TO GIVE ANY NECESSARY DIRECTIONS DURING TRANSPORT.**



**THE MANUFACTURER DECLINES ALL RESPONSIBILITY FOR DAMAGE CAUSED BY INCORRECT OPERATIONS, UNQUALIFIED PERSONNEL OR THE USE OF UNSUITABLE MEANS.**

### 3.2 TRANSPORTING AND HANDLING THE PACKED MACHINE



**EXCLUSIVELY USE A FORKLIFT TRUCK OR EQUIVALENT CAPACITY TO LIFT AND TRANSPORT THE PACKED MACHINE. USING ANY OTHER SYSTEM WILL VOID THE WARRANTY FOR ANY DAMAGE CAUSED TO THE MACHINE.**



**THE WEIGHT OF THE PACKAGING IS GENERALLY INDICATED ON THE OUTSIDE**



**ALWAYS CHECK BEFORE ANY OPERATION THAT THERE ARE NO EXPOSED PEOPLE IN HAZARDOUS ZONES. IN THIS CASE THE ENTIRE ZONE AROUND THE MACHINE PARTS ARE TO BE CONSIDERED A HAZARDOUS ZONE.**

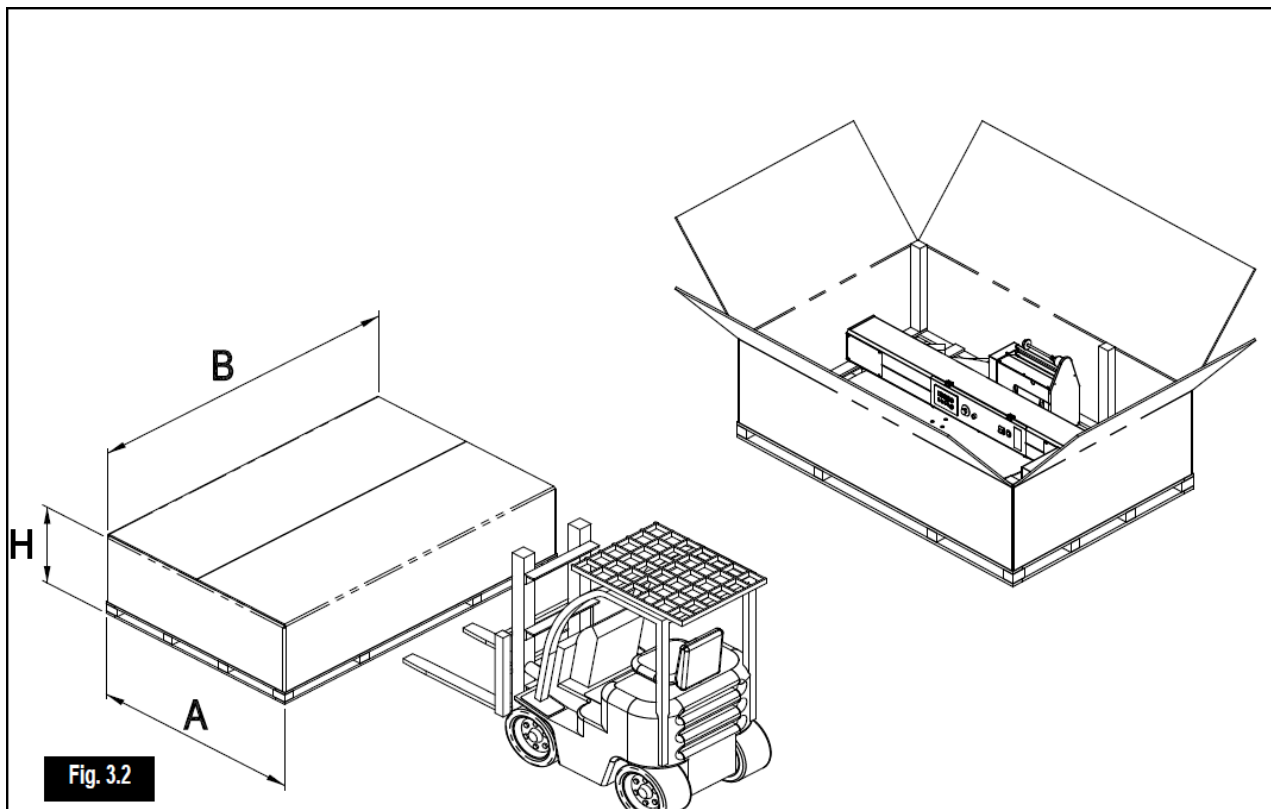
Insert the forks of the forklift where shown on in Fig. 3.2.

#### **Package dimensions**

Standard machine: 2900mm(B) x 1900mm(A) x 850mm(H)

#### **Package weight**

Standard machine: 600kg



### 3.3 TRANSPORTING AND HANDLING THE UNPACKED MACHINE

Remove the cardboard packaging from the machine as shown in Fig. 3.3. Lift the machine **A** (Fig. 3.3) and move it to the installation area.



**EXCLUSIVELY USE A FORKLIFT TRUCK OF ADEQUATE CAPACITY TO LIFT AND TRANSPORT THE MACHINE. USING ANY OTHER SYSTEM WILL VOID THE WARRANTY FOR ANY DAMAGE CAUSED TO THE MACHINE.**



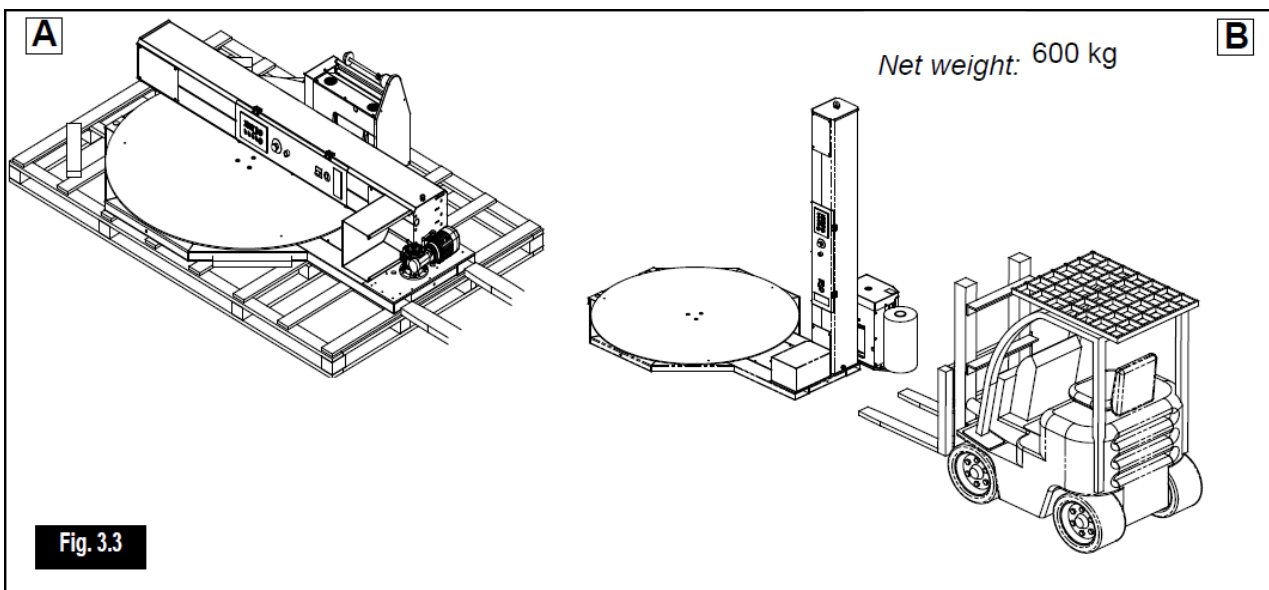
**THE RISK OF IMPACT IN ANY CASE REMAINS, THIS IS CAUSED BY SUDDEN MOVEMENT DUE TO UNBALANCING OF THE MACHINE PARTS THE BELTS MAY SAG OR SLIP. LIFT THE MACHINE SLOWLY AND SMOOTHLY (WITHOUT JERKING OR PULSES).**



**ALWAYS CHECK, BEFORE ANY OPERATION, THAT THERE ARE NO EXPOSED PERSONS IN HAZARDOUS ZONES (IN THIS CASE THE ENTIRE ZONE SURROUNDING THE PALLETS IS TO BE CONSIDERED AS A HAZARDOUS ZONE).**

To lift the machine, proceed as follows:

Carefully insert the forks of the forklift as far as possible into the guides **B** (Fig. 3.3) underneath the machine body.



### 3.4 STORAGE OF PACKED AND UNPACKED MACHINE

In the event of long periods of inactivity, the customer must check the place where the machine is positioned and depending on the type of packaging (crate, container, etc.), ensure that the storage conditions are suitable.

If the machine is not used and stored in a place according to the technical specifications, the sliding parts must be greased. In case of doubt, contact Customer Service.

The manufacturer declines all responsibility if the user does not specify or request the above information.

## 4.0 INSTALLATION PERMITTED

### 4.1 AMBIENT CONDITIONS

**Temperature:**

For regular operation of the machine, the ambient temperature must be between +5°C and +40°C with relative humidity not greater than 50% at a temperature of 40°C and 90% at a temperature up to 20°C (without condensation).

**Atmospheric conditions:**

The electrical equipment is able to function correctly in atmospheric conditions with relative humidity not greater than 50% at a temperature of 40°C and 90% at a temperature not over 20°C (without condensation). If the atmospheric conditions are not suitable for machine operation, the manufacturer can, on request, provide solutions to resolve the problem (e.g. air conditioners, thermostatic heating elements, etc.).

Minimum necessary and essential lighting: 300-500lux

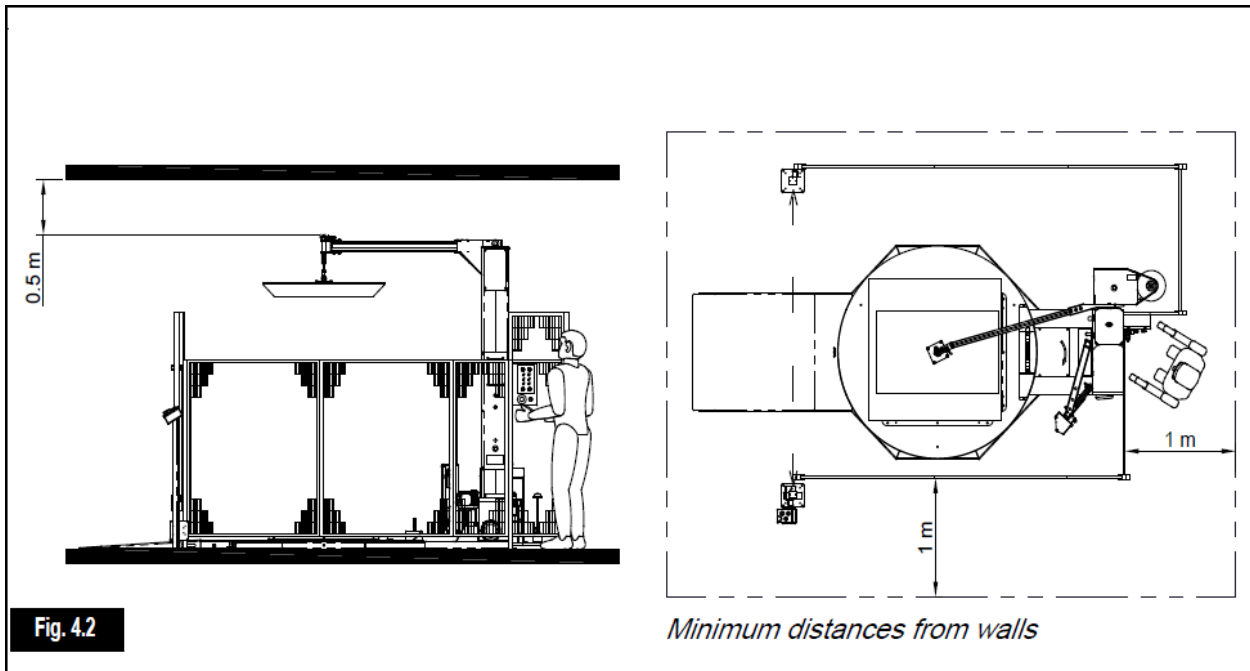


**The standard machine is not designed or set up for operation in places with an explosive atmosphere or risk of fire.**

## 4.2 USE AND MAINTENANCE CLEARANCES

The largest free space must be provided on the side of the turntable used for loading and unloading, there must also be sufficient space for movement of forklift trucks or other equipment necessary for maintenance work and for loading the rolls of film.

The remaining sides of the machine must be placed as far as possible up against side walls or fixed barriers, to prevent easy access (see the example in Fig. 4.2). Reference should always be made to the layout agreed with the manufacturer upon ordering.



## 4.3 POSITIONING THE MACHINE

### 4.3.1 STANDARD MACHINE

In its standard version, the machine is dispatched as follows:

- Base column tipped over the turntable;
- Presser unit (if supplied) dismantled.

No particular preparation is required for the surface on which the machine is to stand. The surface must be smooth and flat in all directions (maximum slope 1‰) and solid enough to support the fully-laden weight of the machine.

Reposition the base column and assemble the parts removed.

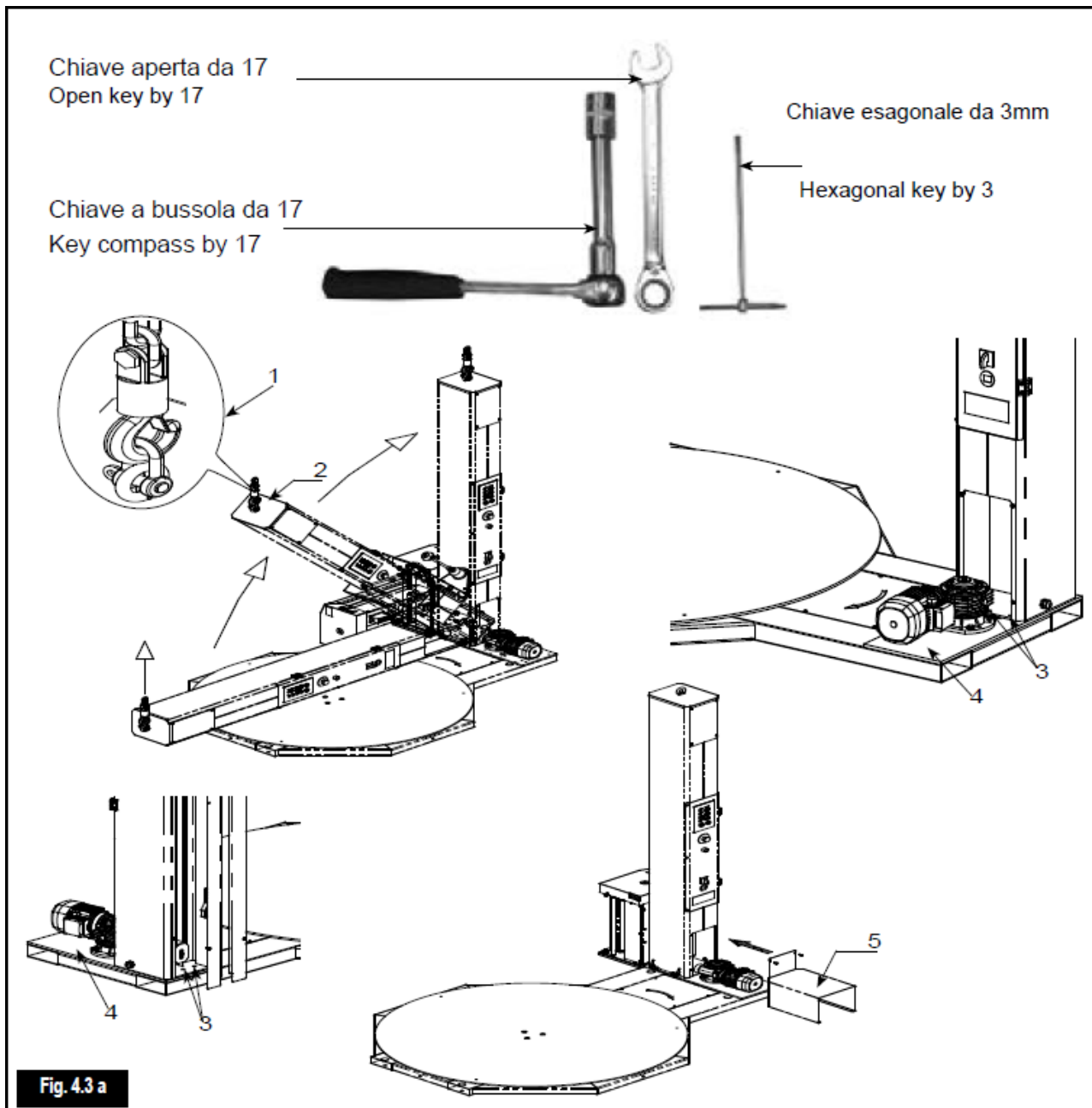
**Repositioning the base column (Fig. 4.3a)**

- Identify the supplied screws for fixing the base column;



The lifting of the column should be carried out using a suitable lifting device (1), fixed to the eyebolt on the column.

- Lift the base column (2);
- Insert the screws (3) on the side and secure the base column to the machine (4);
- Fit the motor guard (5) and secure it with the screws.

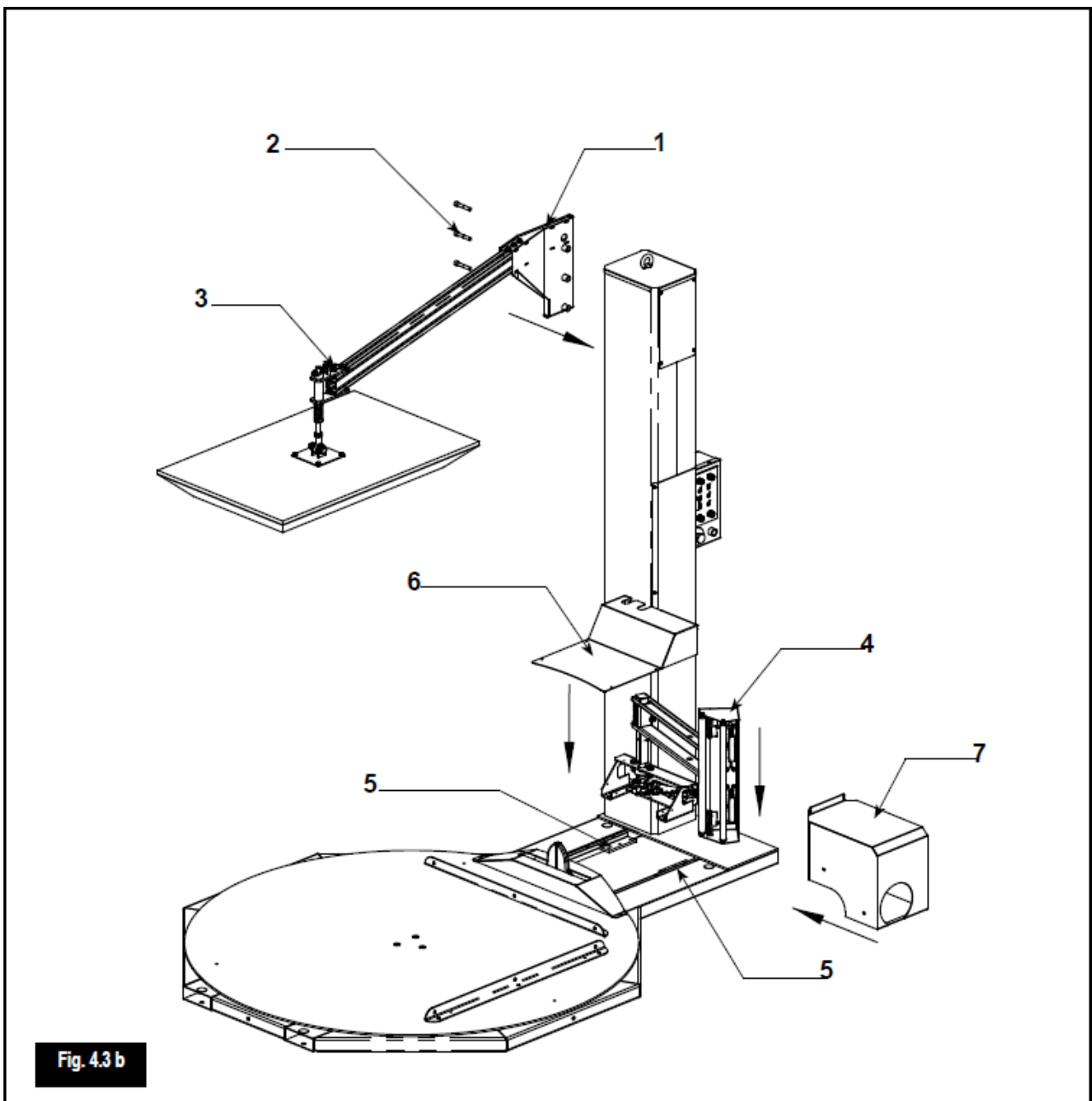


**Mounting the presser unit (Optional) (Fig. 4.3b)**

- Mount the pressure arm (1) and secure it with the 3 screws (2);
- Connect the sensor cable (3);

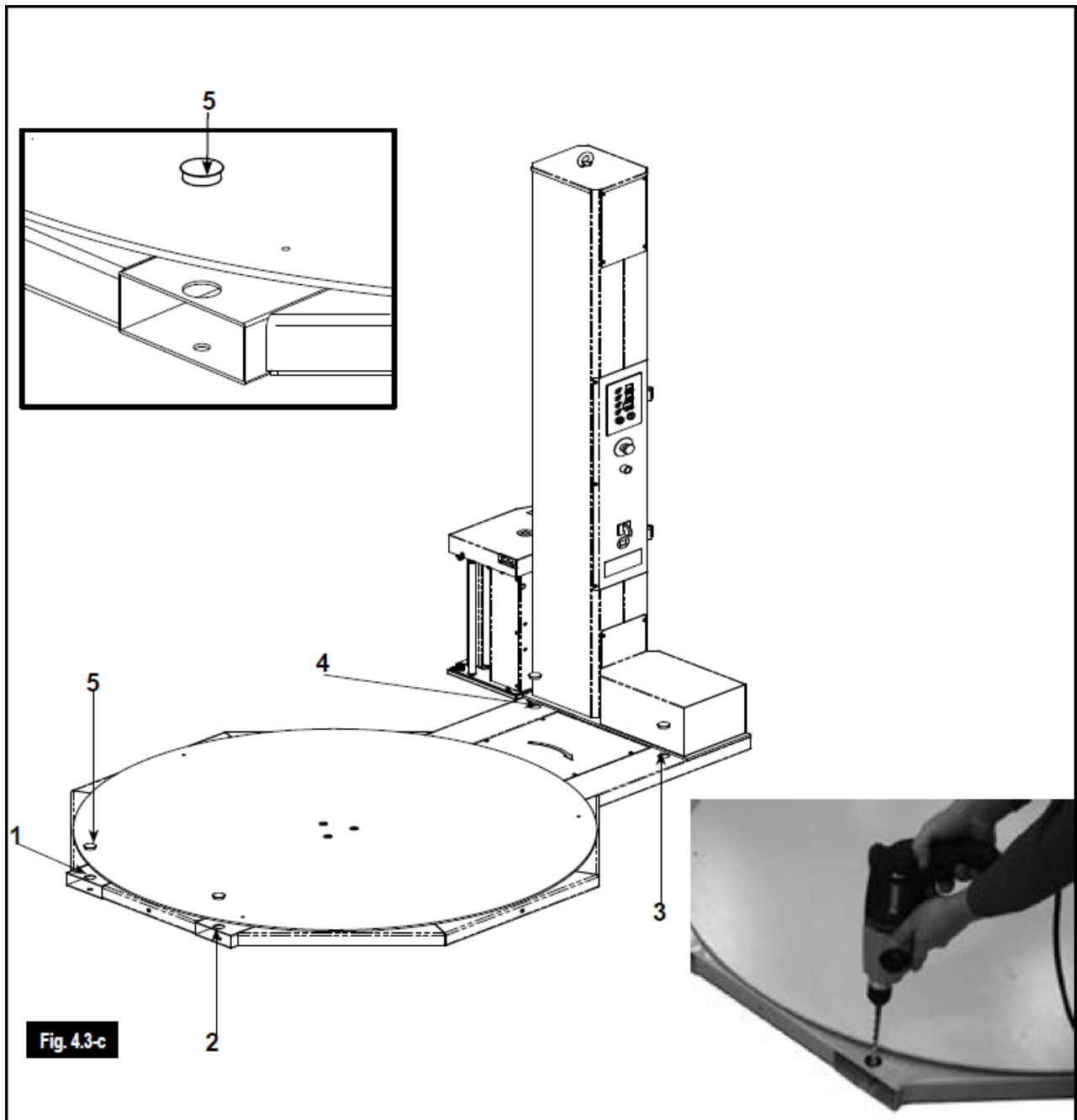
**Mounting the clamp**

- Place the clamp (4) for the surface on which the machine is to stand (5);
- Mount the closing guard base (6);
- Mount the safety guard valves (7).



**Fixing to the floor** (Fig. 4.3c)

- Remove the four plastic caps **(5)**;
- Drill holes in the floor at point **(1-2-3-4)**;
- Insert steel anchors and tighten;
- Put back the plastic caps **(5)**.

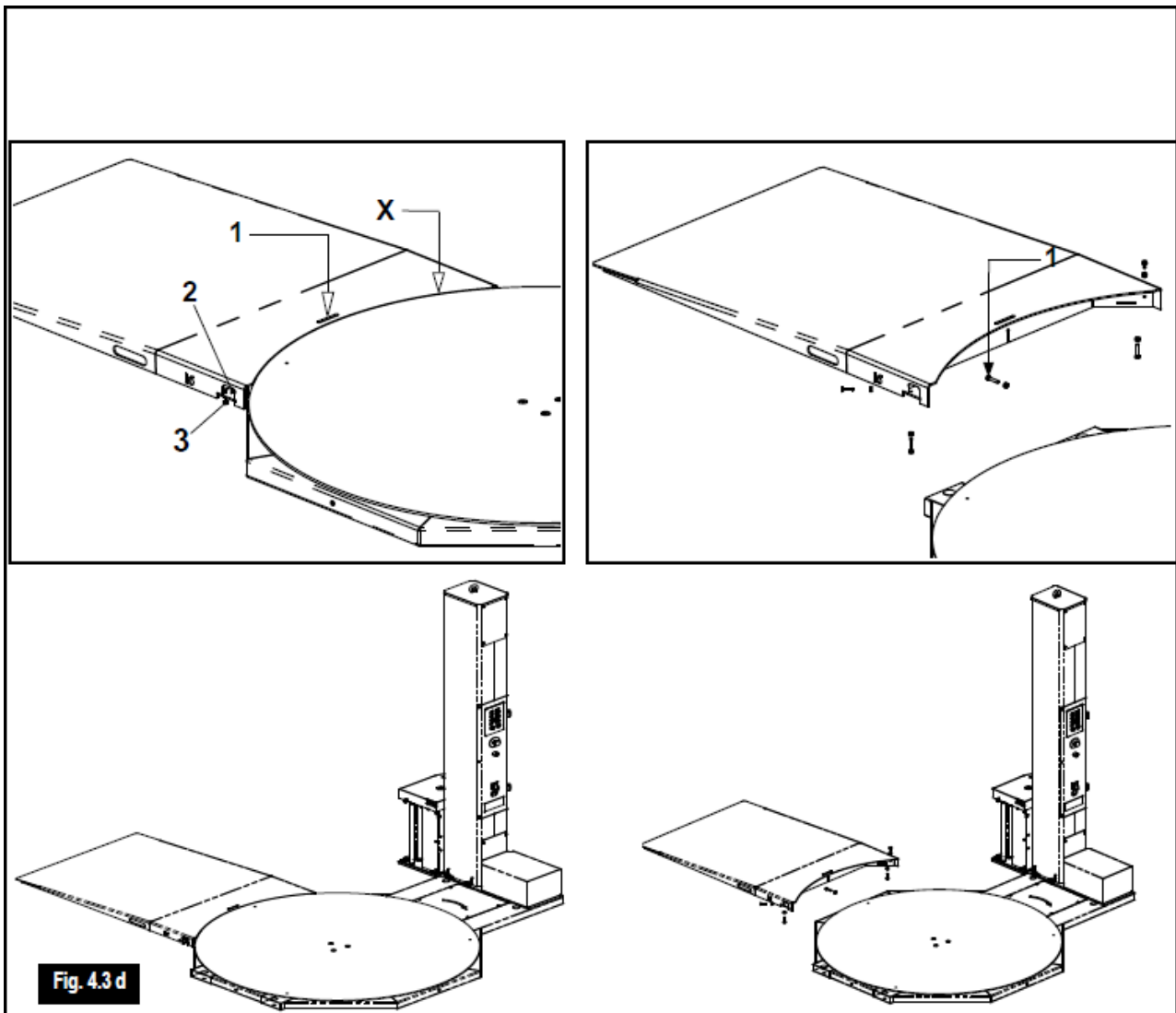




### Mounting the ramps (optional)

The ramp can be mounted on three sides. To mount the ramp, proceed as follows (Fig. 4.3d):

- Tighten the screw **(1)** on the base and push down on the ramp to fit the slot;
- Adjust screw **(3)** to make the ramp flush with the base;
- Adjust the distance **(X)** of the ramp from the turntable by tightening or loosening screws **(2)**, **the distance must be adjusted to 2 ÷ 5 mm (max)**;
- Tighten the screw **(1)**;
- Tighten the lock nuts.



### 4.3.2 MACHINE RECESSED INTO THE FLOOR

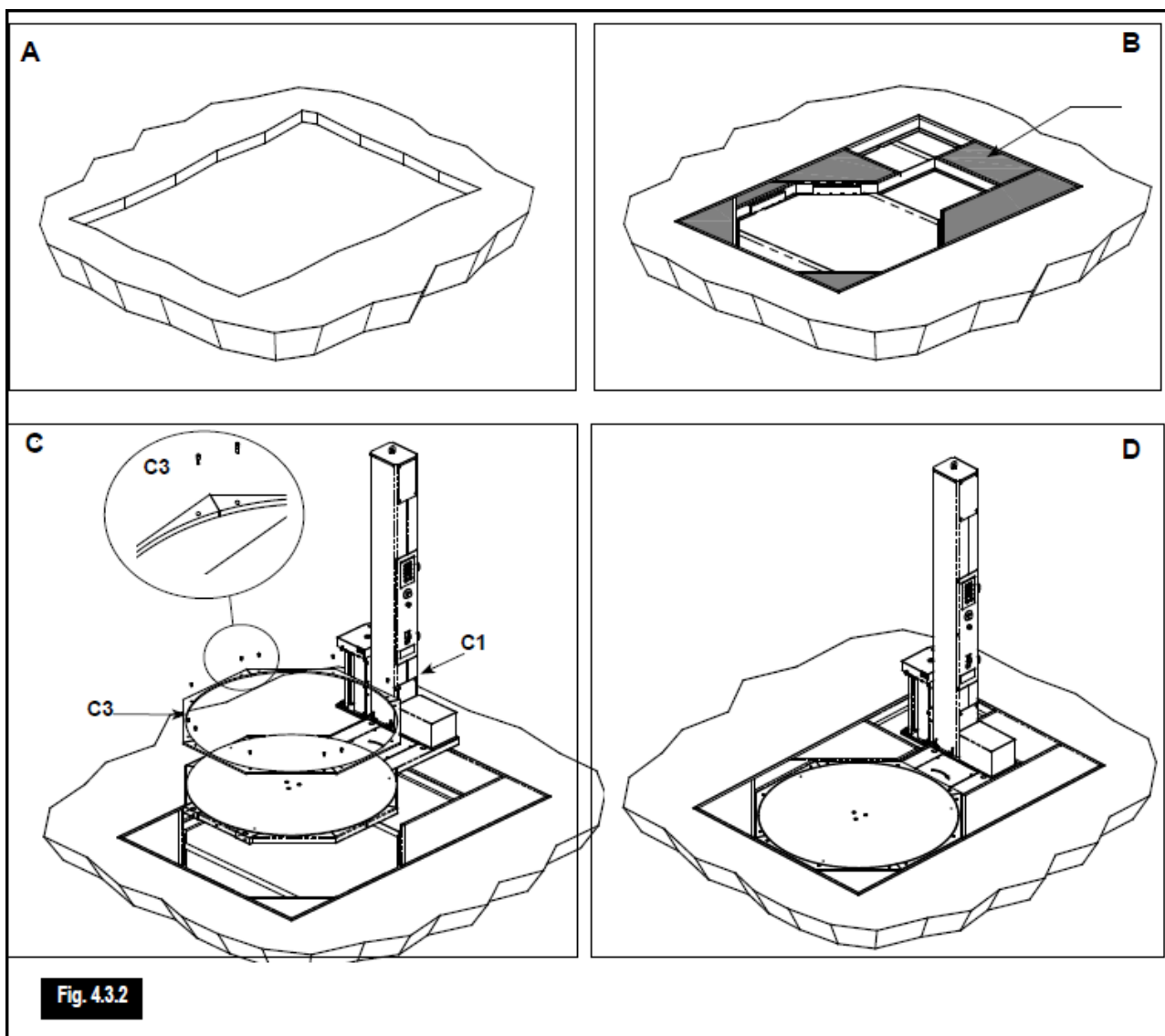
Before assembling the machine, make a recessed area in the floor as shown in Fig. 4.3.2 illustrating the reference template.

Make a hole at least 8 cm deep (see **A**).

Secure the template flush with the floor (**B**) and level the bottom of the hole at 8 cm from the surface of the floor. Also fill in area (**B1**).

Insert the machine (**C1**) and fix the sections (**C2**) around the plate, centring them and securing them with the screws (**C3**) in the free space between the round plate and the walled frame, **the distance must be adjusted to 2 ÷ 5 mm (max)**.

The completed assembly is shown in (**D**).



#### 4.4 ELECTRICAL CONNECTION



The machine should be connected to the electrical power supply by a specialised and expert industrial electrician. Do not carry out any interventions that can alter circuits, settings, components etc.

Failure to comply with this condition is regarded as a tampering with the supplied items. The connection to the mains must be done after running:

- The positioning of all components of the machine.
- The connection of all cables disconnected for transport following the wiring diagram supplied with the machine.



**THE ELECTRICAL POWER SYSTEM CONNECTED TO THIS PRODUCT MUST BE SET UP IN CONFORMITY WITH THE SAFETY STANDARDS CURRENTLY IN FORCE, EQUIPPED WITH AN ISOLATOR SWITCH AND AN EARTH CIRCUIT. THE VOLTAGE AND FREQUENCY MUST BE COMPATIBLE WITH THE INFORMATION GIVEN ON THE IDENTIFICATION PLATE.**



**ANY FAULTS OR ANOMALIES IN THE EARTH CIRCUIT CONNECTED TO THE MACHINE CAN, IN THE EVENT OF BREAKDOWN, LEAD TO THE OPERATOR SUFFERING AN ELECTRIC SHOCK WITH THE CONSEQUENT RISK SERIOUS INJURY OR DEATH.**

Lock switch and warn of the operation being done with an adequate sign.

Make sure the main switch of the machine, placed on the electrical cabinet, is turned to "0" (zero) OFF.

The machine is delivered with a cable without a plug which is already connected to the terminal board on the electric panel.



**THE ELECTRICIAN MUST CORRECTLY FIT AN APPROPRIATE PLUG ACCORDING TO THE CURRENT REGULATIONS IN THE COUNTRY OF USE.**

The plug must be wired as shown in the following colour scheme:

Brown: Phase - Blue: Neutral - Yellow/Green: Earth

Insert the plug into the socket and turn the main switch in "I-ON" position.

Before turning the main switch to the "I" (ON) position, make sure there is nobody within the dangerous area.

MANUFACTURER accepts no responsibility for damage caused by the non-compliance with the rules above or by unskilled personnel.

## 4.5 PNEUMATIC CONNECTION

The provision of air must be made in respect of the scheme in support of the entire machine. The air connection must be able to ensure the amount of air specified in technical data.



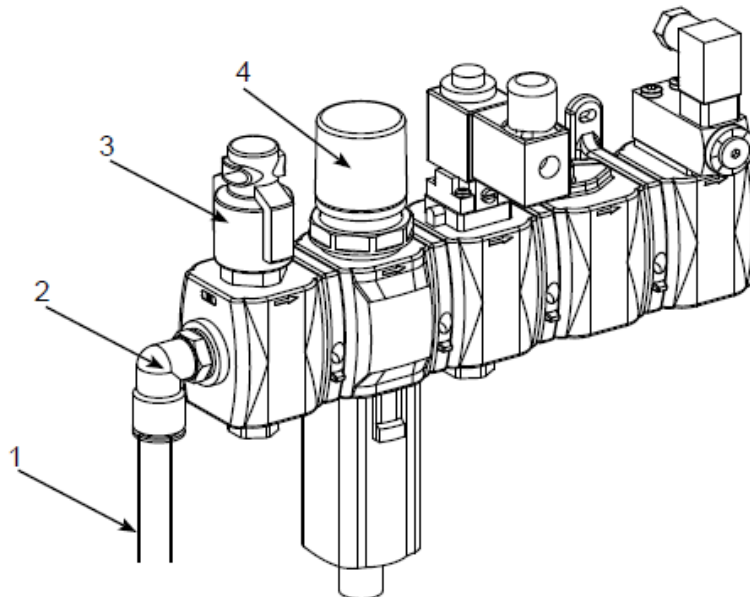
**BEFORE STARTING TO MAKE THE PNEUMATIC CONNECTION, PRESS THE EMERGENCY PUSHBUTTON.**

For the pneumatic connection proceed as follows:

- Insert the hose **(1)** into the quick connector **(2)** of the air treatment group;
- Check that the valve **(3)** is in position "OPEN";
- Activate the pressure supply line;
- Check the pressure gauge that indicates a value. Should be no less than 6 bar
- Adjust the knob **(4)** to compensate for any differences in pressure. Check again when the machine is running.



**THE PROVISION OF AIR MUST BE CARRIED OUT ONLY BY QUALIFIED PERSONNEL IN COMPLIANCE WITH SAFETY REQUIREMENTS.**



**Fig. 4.5**

## 5 START UP THE MACHINE

### 5.1 ELECTRICAL PANEL

**1. Main switch (1)**

Switches the machine on and off, cutting off the mains power supply.

**2. Reset button (2)**

Provides power to the auxiliary circuits, has to be pressed after switching on or after the emergency button has been pressed.

**3. Emergency button (3)**

Stops the machine and cuts off the main power supply in situations of emergency or imminent danger; to reset the button once it has been pressed, turn the top of the button clockwise.

**4. Control panel (4)**

Used to control the machine and the work cycle.

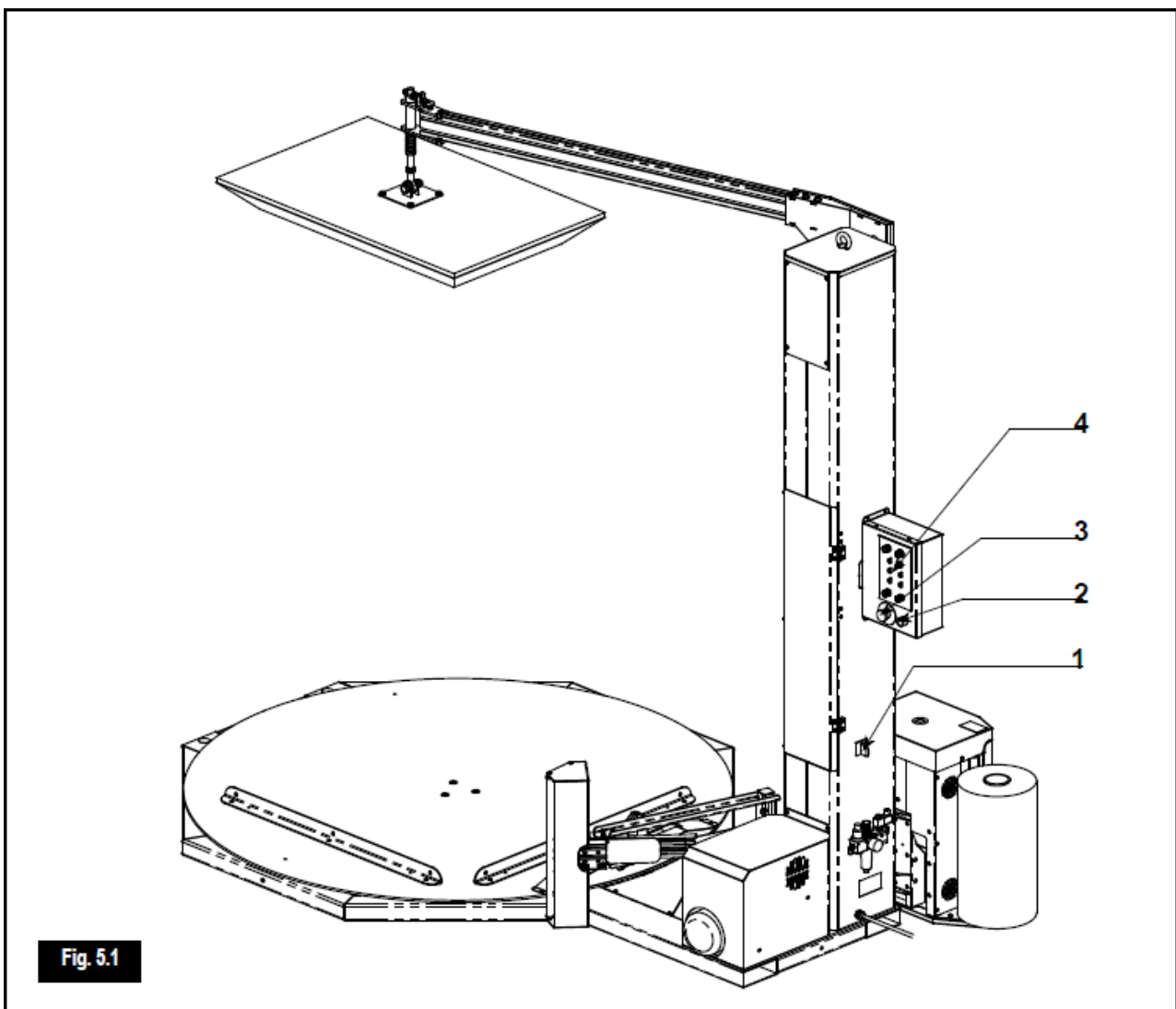


Fig. 5.1

## 6.0 MAINTENANCE

### 6.1 GENERAL PRECAUTIONS

#### 6.1.1 MACHINE DISCONNECTION

Before performing any maintenance or repair operations, disconnect the machine from all the power sources. Turn the main power switch to 'O'-OFF.

#### 6.1.2 SPECIAL PRECAUTIONS

When performing maintenance or repair operations, observe the following:

- Before starting work, post a sign "MACHINE UNDER MAINTENANCE" in a well visible position.
- Do not use solvents or flammable materials.
- Take care not to pollute the environment with cooling lubricants.
- Use suitable equipment to access the upper parts of the machine.
- Do not climb onto machine components or guards, as they have not been designed to support the weight of a person.
- After completing the maintenance operations, refit and properly secure all the protection devices and safety guards that have been removed or opened.

#### 6.1.3 CLEANING

Periodically clean the safety guards, particularly the transparent material of the casing, using a damp cloth.

## 6.2 SCHEDULED MAINTENANCE

This paragraph describes the operations to be carried out periodically in order to ensure proper functioning of the machine.



**IT IS ESSENTIAL TO CAREFULLY OBSERVE THE MAINTENANCE OPERATIONS DESCRIBED BELOW IN ORDER TO MAKE THE MACHINE MORE EFFICIENT AND ENSURE A LONGER LIFE.**



**IF MACHINE MAINTENANCE IS NOT CARRIED OUT IN COMPLIANCE WITH THE INSTRUCTIONS PROVIDED, THE MANUFACTURER IS RELIEVED OF ALL RESPONSIBILITY FOR MALFUNCTIONING OF THE MACHINE.**

## 6.2.1 ACTIVE SAFETY DEVICES MAINTENANCE

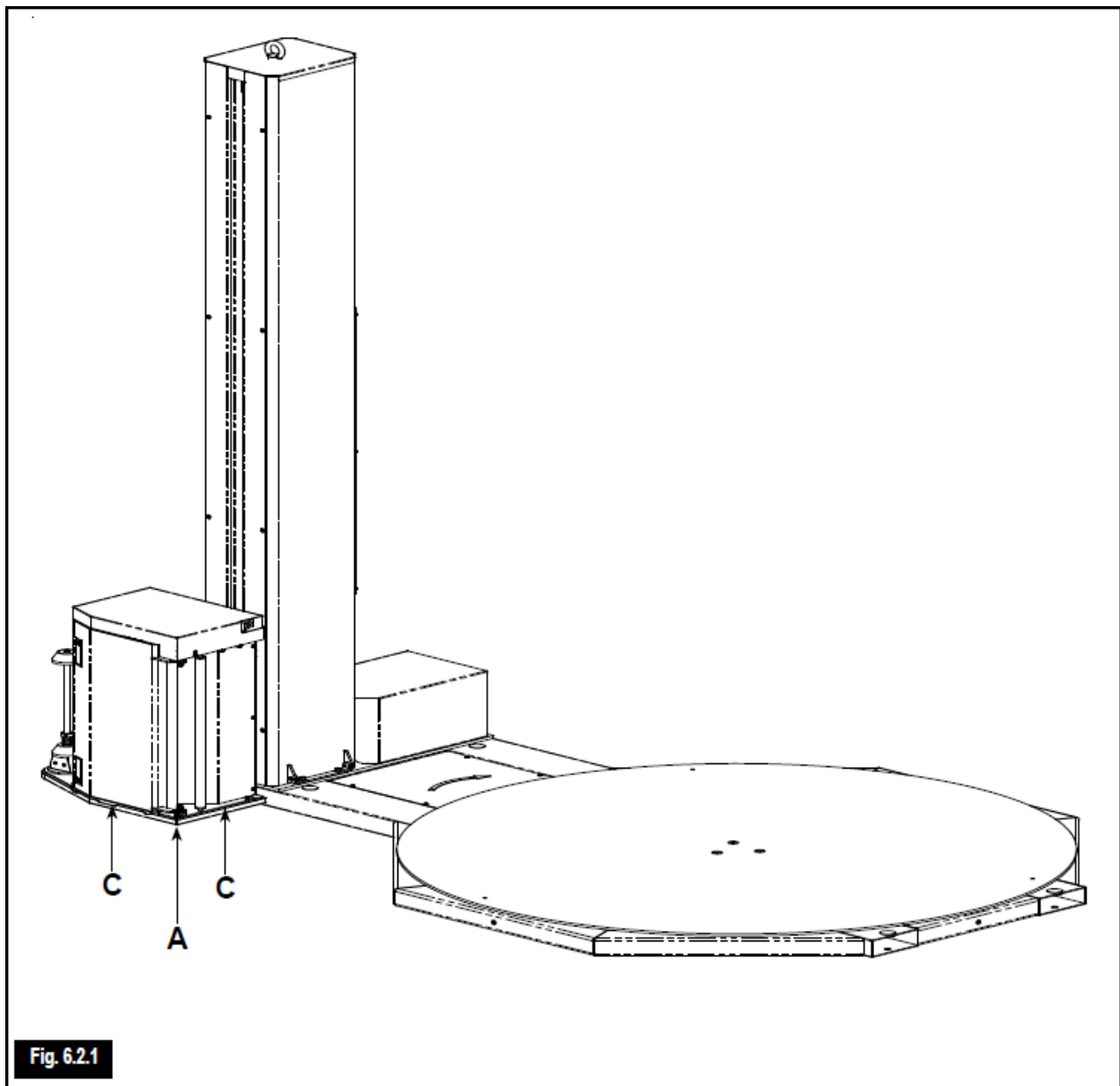


**CHECK THE OPERATION OF THE SAFETY DEVICES BEFORE STARTING WORK.**

### DAILY OPERATIONS:

Clean out the crush-protection safety devices with compressed dry air.

Check that the carriage bottom plate **(A)** are working properly. Make sure also that there are no foreign bodies in the crevices **(C)**.



**Fig. 6.2.1**

## 6.2.2 DAILY MAINTENANCE

### Cleaning

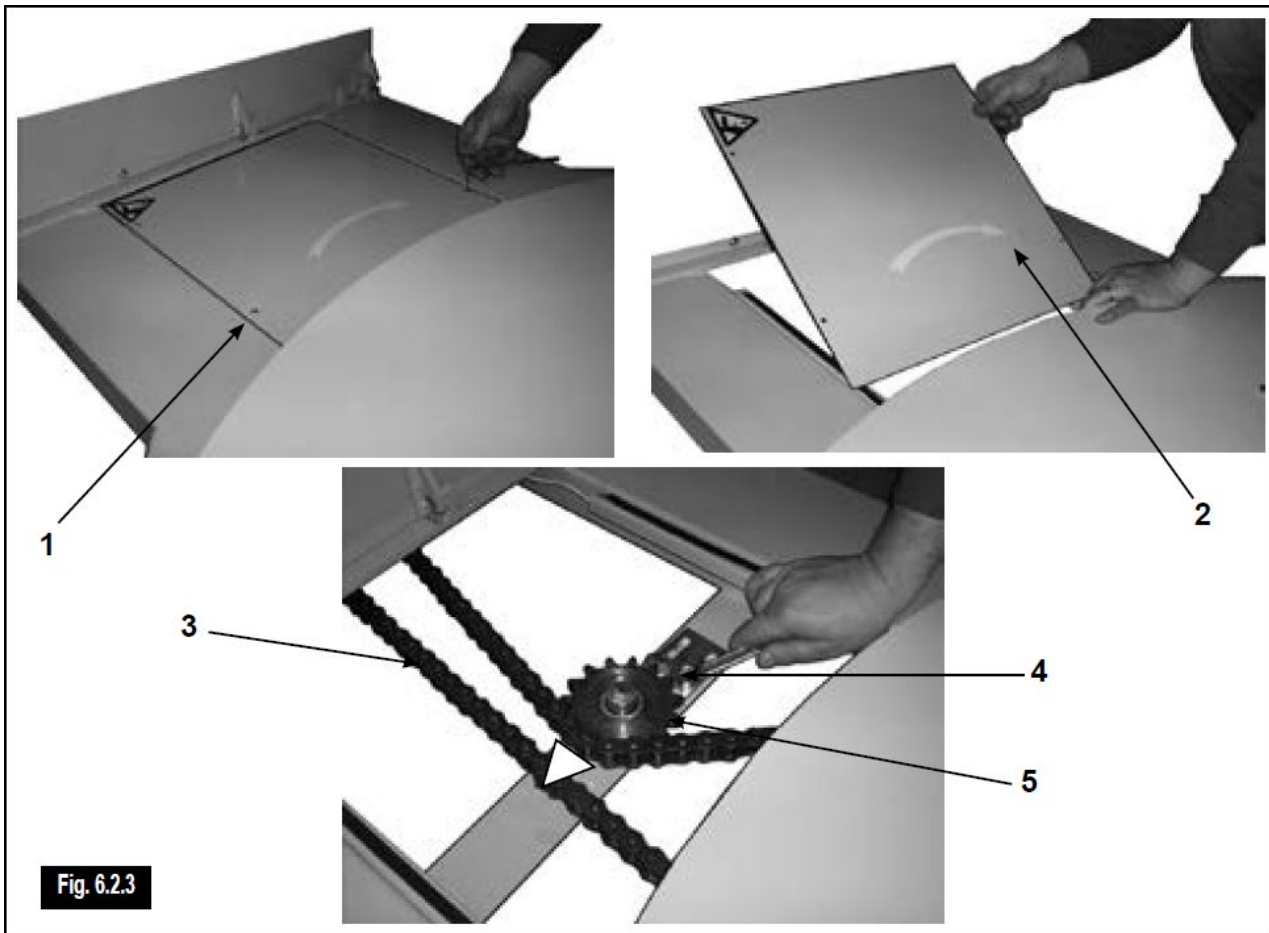
Carefully eliminate all traces of dirt on all the machine surfaces. Use a clean damp cloth. Clean the photocells with a clean soft cloth.

## 6.2.3 QUARTERLY MAINTENANCE

Check the tension of the chain driving the turntable as follows:

### Standard turntable (Fig. 6.2.3)

- Remove the screws **(1)**;
- Remove the guard **(2)**;
- Check the tension of the chain **(3)**. To tighten, loosen the screws **(4)**, push hard on the Chain tightener pinion **(5)** and tighten the screws **(4)**. Grease the chain;
- Put back the guard **(2)** and secure it with the screws **(1)**.





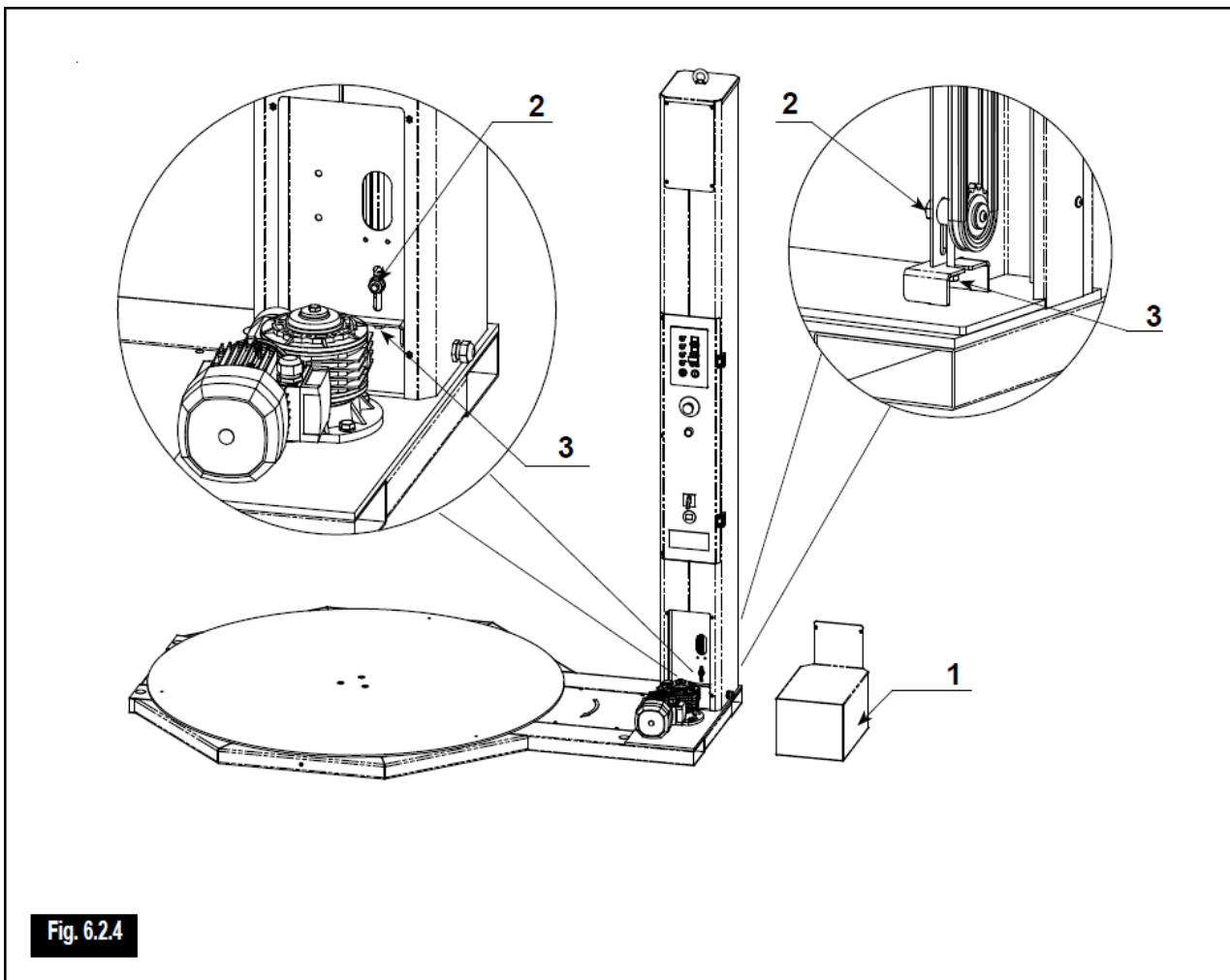
## 6.2.4 SIX MONTHLY MAINTENANCE

Check the chains and transmission for wear and replace if necessary.

### Tensioning the chain (Fig. 6.2.4)

Check the tension of the carriage chain after the first month of use the machine and then every six months.

- Remove the screws securing the motor cover **(1)**, then remove the motor cover.
- Loosen the lock nut **(2)** blocking the idler pulley. Turn the screw tension **(3)**, positioned on the base of the column.
- The pulley is then adjusted along the slot, once it reaches the desired chain tension, tighten the lock nut **(2)**.
- Refit the motor cover **(1)** and secure with the screws.



## 7.0 OUT OF SERVICE

### 7.1 DISMANTLING SCRAPPING AND DISPOSAL



**IF THE MACHINE OR ITS COMPONENTS ARE FOUND TO BE NO LONGER SERVICEABLE OR REPAIRABLE BECAUSE THEY ARE BROKEN, WORN OR HAVE COME TO THE END OF THEIR WORKING LIFE, THEY MUST BE DESPOSED.**

- All components must be dismantled and scrapped after being broken down into smaller parts, so that none of them can be used again.
- When the machine is scrapped, its parts must be disposed of in a differentiated manner, taking into account their different types (metal, oil and lubricants, plastic, rubber, etc..) handing them over to collection centres authorised for such purposes and in any case conforming to the applicable laws in force governing the disposal of solid industrial waste.



**NEVER TRY TO RE-USE MACHINE PARTS OR COMPONENTS THAT MAY STILL APPEAR INTACT ONCE THEY HAVE BEEN DECLARED NO LONGER SERVICEABLE.**